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The Mexican punitive expedition and the United States Army Aviation Section

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THE MEXICAN PUNITIVE EXPEDITION AND THE UNITED STATES ARMY AVIATION SECTION

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ABSTRACT

The United States Army Signal Corps Aviation Section was a weak air service devoted primarily to experimental testing prior to World War I. In March 1916, President Woodrow Wilson ordered a punitive expedition into Mexico to capture the Mexican nationalist, Francisco (Pancho) Villa. One of the organizations assigned to the expedition was the First Aero Squadron: the Signal Corps' only operational unit. This study examines the Mexican punitive expedition, preparedness for World War I, and the development of United States air power. It concludes that the Mexican punitive expedition was a critical point in the history of the United States Air Force.

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CHAPTER I

INTRODUCTION

The airplane is an American invention, but the United States was the last major power to recognize its value, especially as an instrument of war. On December 7, 1903, Wilbur and Orville Wright made the first successful, controlled heavier-than-air flight at Kitty Hawk, North Carolina. One year later, January 18, 1905, they offered their invention to the United States government; only to be rebuffed by the Ordnance and Fortification Board, whose members were skeptical of the very existence of an air machine. This skepticism toward aviation, at first, as to its reality, and later, as to its usefulness, caused the United States to fall behind the other great powers in the field of aeronautics.[1]

Congressional conservatism toward aviation, resulting from uncertainty over the value of the experimental military machines, delayed the development of American air power. It was not until August 29, 1916, that the law makers appropriated the first suitable sum for army aviation, 13,281,666 dollars.

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[1]Letter, Frank P. Lahm, First Lieutenant, Signal Corps to the Chief Signal Officer, War Department, 1907, United States Air Force Archives, 168.651.6. (Photocopy.)

This action, long overdue, provided the initial means for the eventual expansion of the then infant air service into today's air force. These funds fulfilled a desperate need: to provide trained aviators and operational aircraft for the United States' entry into World War I.[2]

Congressional uncertainty limited the physical growth of the Army Air Service. Prior to the passage of the National Defense Act, June 3, 1916, aviation manpower was severely restricted. The Act increased the Tables of Organization of the Signal Corps of the United States Army, removed the age, rank, and marital restrictions on aviation officers, and set the stage for the creation of a reserve force.[3] Unfortunately, the provisions for money and men were too late to fully prepare the Army Air Service for its role in the Great War. However, these acts did provide a basis for war preparedness.

The fledgling Army Air Service was also vastly improved by events that transpired in early 1916. These events centered around the employment of the First Aero Squadron during the Mexican punitive expedition. The publicity created by

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[2]U.S., Statutes at Large, Vol, XXXIX, pt. 1 (December 1915 to March 1917), "An Act Making Appropriations for the Support of the Army for the Fiscal Year Ending June 30, 1917, and for Other Purposes," August 29, 1916, ch. 418, pp. 619-627.

[3]U.S., Statutes at Large, Vol. XXXIX, pt. 1 (December 1915 to March 1917), "An Act for Making Further and More Effectual Provision for the National Defense, and for Other Purposes," June 3, 1916, ch. 134, pp. 166-176.

the military aviators' failures awakened Congress and the American public to the true plight of army aviation.

This period of change, the Mexican punitive expedition, and the actions of the First Aero Squadron is the major theme of this paper.

In order to provide the reader with an adequate background, the writer will first discuss the beginnings of the Army Air Service, and the aerial capabilities of the First Aero Squadron. He will then follow the course of the Mexican punitive expedition, in order to develop its impact on army aeronautics, as well as to examine the recommendations and lessons of the expedition. Finally, the writer will attempt to ascertain the effect on the American Air Service preparedness.

This thesis is not all inclusive. The writer has limited his subject to the heavier-than-air Army Air Service. It is recognized that other activities assisted the growth of military aviation. However, the primary purpose of this paper is to highlight the importance of the effect of the Mexican punitive expedition on the United States national defense and especially, its aerial preparedness for World War I.

CHAPTER II

THE ARMY AVIATION SECTION: 1907-1915

The " . . . United States' military and naval aerial corps [did] not exist . . . " as a viable force in 1915.[1] It was an air arm in name only. The total operational capability of all air services, as of June 1915, was eleven airplanes, seven army and four navy, and their serviceability was questionable.[2] The Army Aviation Section, hampered by inadequate General Staff support had yet to develop an air doctrine.[3] Stifled by impossible personnel policies and low funding, United States' military aviation lagged behind the rest of the world.[4] While the European belligerents secretly developed, tested, and implemented their air forces over the trench lines, the wings of the United States eagle remained clipped. It was no wonder then, that in March 1915,

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[1]New York Sun as cited by Aerial Age Weekly, June 28, 1915, p. 342.

[2]Aerial Age Weekly, June 28, 1915, p. 341.

[3]Benjamin D. Foulois, "Statement on the Necessity for the Creation of a Department of Aeronautics," United States Air Force Archives 168.68-12, October 1919, p. 8, hereafter cited as "Foulois Statement." (Typewritten.)

[4]Arthur Sweetser, The American Air Service (New York: D. Appleton and Company, 1919), pp. 15-18.

Alan R. Hawley, President of the Aero Club asked, "If the national bird cannot fly -- what sort of bird is it"?[5]

The role placed upon army aviation by United States' military leaders was primarily reconnaissance. The air service was to provide a field commander strategic and tactical warning, thus depriving an enemy of the capability to deliver" . . . unexpected blows and surprises . . . ."[6] This concept embodied a philosophy that air power existed to extend the time honored positions of the cavalry, infantry, and artillery. Aircraft could only pinpoint objectives, and eliminate some unnecessary and uncertain searching for enemy armies. Their capability to cover a broad expanse of territory, coupled with rapid radio and telegraph communications, provided the field commander with a scope and depth of operations never before available. The resultant effect of the "reconnaissance only" concept of air power was the establishment of a principle that war strategy was not changed by the airplane, only certain tactical applications were.[7] Therefore, an air doctrine was not necessary.

Military aviators in the Aviation Section, and others

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[5]Aerial Age Weekly, March 22, 1915, p. 13

[6]U. S. War Department, Annual Report of the Chief Signal Officer, United States Army, for the Fiscal Year Ended June 30, 1915 (Washington, D.C.: Government Printing Office, 1915), p.6., hereafter cited as Annual Report 1915.

[7]Ibid., pp. 6-8.

in quarters friendly to the promotion of an air doctrine, held more controversial and less accepted roles for air power. As early as 1907, Lieutenant Benjamin D. Foulois, then a member of the Signal Corps, wrote on "The Tactical and Strategical Value of Dynamical Flying Machines."[8] In it he predicted future air engagements would occur days before hostile ground forces made contact, and that these engagements would affect the final outcome of future conflicts.[9] In 1908, Major George Owen Squier, Signal Corps, United States Army, forecast the eventual use of aircraft as a strategic deterrent to war that could be directed " . . . at the seat of government itself . . . ."[10]

The majority of secondary air roles considered as feasible were less strategic and more tactical in nature. The successful use of aircraft in Europe, as well as an emerging home-created tactical opinion, convinced many United States' military leaders that aircraft could provide a means of

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[8]Benjamin D. Foulois, "Personnel service report for period 1898 to 1919," United States Air Force Archives 168.68-5, October 14, 1919, p. 3, hereafter cited as "Foulois Record." (Typewritten.)

[9]Ibid.

[10]George O. Squier, "The Present Status of Military Aeronautics," (paper presented at the December 1908 Meeting of the American Society of Mechanical Engineers, New York, N.Y., December 1908), p. 1615. (Reprint from Journal of American Society of Mechanical Engineers.)

coastal defense, submarine spotting and front line combat support. These predictions were backed by the statements and experiences of Europeans. Air power was seen as being useful in the interdiction of supplies and personnel, in spotting and controlling artillery fire, in preventing enemy air reconnaissance, and as a rapid means of transportation for high level officers. In an attempt to implement some of these capabilities, Brigadier General George P. Scriven, Chief Signal Officer, United States Army, requested in July 1915, that the air service be furnished "offensive type" and "rapid flying machines" as well as reconnaissance aircraft.[11] His request fell on deaf ears and the eagle's wings remained the size of a penguin's.

Prior to July 18, 1914, Congress had failed to make definite provisions by law to provide for the functional duties of the Signal Corps with respect to an air service.[12] Congressional action had been either limited to individual attempts by Congressmen to gain military reservations for their respective states, or it had been concerned with providing limited funds, limited personnel, and aviator pay and

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[11] Annual Report 1915, pp. 6-8.

[12] E. Earl McClendon, "The Question of Autonomy For The United States Air Arm, 1907-1945." (Unpublished paper prepared for the Documentary Research Division, Air University, 1950), p. 7, hereafter cited as "McClendon Report."

death benefits.[13] It had not sought to delineate how the Army would operate, train, supervise, or implement an aviation unit.[14] When, on July 18, 1914, Congress established an Aviation Section in the Signal Corps, United States Army, it finally fixed the pay, grades, and numbers of personnel, and formulated the rules that would govern them.[15]

The Aviation Section was

> . . . charged with the duty of operating or supervising the operation of all airoraft, including balloons and aeroplanes, all appliances pertaining to said craft; also with the duty of training officers and enlisted men in matters pertaining to military aviation.[16]

Executive, administrative and scientific services were to be provided by the Signal Corps, while the 60 aviation officers and students and the 260 enlisted personnel were to operate the schools, units, and material areas.[17]

The officer corps was limited by the Act, to a maximum grade of temporary captain. Those officers selected for aviation duty were considered to be on a detached duty tour

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[13]Compiled from a survey by author for all sessions of Congress, December 4, 1911 to October 24, 1914, from Congressional Record, Vol. 48 through Vol. 51.

[14]Annual Report 1915, p. 8.

[15]Efficiency of the Aviation Service of the Army Act, Statutes at Large, Vol. XXXVIII, Chap. 186, p. 514, hereafter cited as Act of 1914.

[16]Ibid.

[17]Ibid.

of four years. At the end of their tour they were to return to their regular branch of service. Officer resources for aviation duty were to be restricted to unmarried lieutenants of the line who were less than thirty. Upon their selection, which came only after being recommended by the Chief Signal Officer, they were to be designated as aviation students. This student duty was not to exceed on year. If the novice aviators were found to be unfit for flying service they were to be immediately returned to line duty. If however, they qualified, they would receive an aeronautical rating of Junior Military Aviator. As flying experience progressed, but in no case in less than three years, the Junior Military Aviators were to be upgraded to Military Aviators.[18]

Flying duty was considered hazardous, and the law specifically limited it to volunteers except in war time. In order to induce military officers to volunteer for flight duty, Congress provided financial incentives. All aviators, below the rank of Captain, were to be advanced one rank for purposes of pay, rank, and allowances. In addition to this increase, if their duties required frequent aerial flight, Junior Military Aviators would receive an additional 50 percent pay increase and Military Aviators a 75 percent pay raise.[19]

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[18] Ibid. pp. 514-515.

[19] Ibid. pp. 515-516.

Congress, in creating the Aviation Section, also specified the strength and composition of the enlisted ranks. The authorization of 260 enlisted personnel provided for 12 master signal electricians, 12 first-class sergeants, 24 sergeants, 78 corporals, 8 cooks, 82 first class privates, and 44 privates. Of these, a maximum of forty could be trained as aviation mechanics and twelve could be enlisted pilots.[20]

The constraints placed by Congress on the Aviation Section hampered it primarily in two major areas: personnel and funding.[21]

The act of July 18, 1914, incorprated two faulty personnel features. First, it fixed a maximum allowable grade limit of temporary captain or permanent first lieutenant. Second, officer resources were to be selected only from the ranks of unmarried lieutenants who were in their twenties. Both restrictions served to create an experience vacuum, especially in the area of command. General Scriven noted this in 1915, when in his annual report he sought to retain Foulois " . . . one of the few officers of age and experience in the aviation section . . . and one of the best practical

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[20] Ibid., p. 516.

[21] "Army Air Forces Historical Studies: No. 39, Legislation Relating to the Air Corps personnel and Training Programs, 1907-1939," (AAF Historical Office: Headquarters, Army Air Forces, 1945), p. 8; Annual Report 1915, pp. 8-11, and Sweetser, Air Service, pp. 15-16.

fliers . . . .'[22] Foulois, soon to be promoted to permanent captain was on the verge of returning to the infantry. The thirty-year old age limit served to amplify the lack of experience by ' . . . fill/ing/ the aviation section with young and inexperienced officers of a few years' service, the vast majority of whom /were/ second lieutenants.'[23] Of the total twenty-nine Aviation Section line officers, only five were first lieutenants as of August 16, 1915. The age and marriage limit also seriously hampered the availability of new aviation candidates. Only 6.4 percent (65) of the line first lieutenants and 64.9 percent (668) of the second lieutenants were eligible for aviation selection. Of these, at least 20 percent were unable to pass the required physical examination. Therefore, only 27 percent of line lieutenants were actually eligible for Aviation Section service. The Chief Signal Officer stated, in 1915, if personnel limitations were not removed it would ' . . . be absolutely impossible to fill satisfactorily the important command or administrative positions in the Aviation Section.'[24]

Congress also had an unblemished record of continual failure in providing adequate funds for the promotion of military air power. The first nation to fly in 1903, had

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[22]Annual Report 1915, pp. 8-10.

[23]Ibid., p. 10.

[24]Ibid., pp. 9-10.

by 1913, assumed fourteenth place in military air appropriations among the world's nations. Germany was the world leader with 28 million dollars, and even Bulgaria, Greece, Spain, and Brazil had invested more funds in aviation than the United States had.[25] By the end of 1915, the total United States appropriations for army aviation amounted to a scant 600,000 dollars.[26] Inspired by a public opinion of "the United States never was so safe from invasion as it is today," and by failing to foresee the need for military aviation, Congress had continuously withheld needed moneys.[27] General Scriven, in requesting an aviation appropriation of 1,358,000 dollars in July 1915, noted " . . . the lack of a sufficient appropriation [for aviation] has greatly hampered the equipment and operation of the [aviation] school and the First Aero Squadron."[28]

As a result of these meager appropriations and the great secrecy surrounding any aeronautical developments by the European belligerents, the United States' technology lagged

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[25] Sweetser, Air Service, pp. 15-16.

[26] U. S., War Department, Annual Report of the Chief Signal Officer, United States Army, for the Fiscal Year Ended June 30, 1917, (Washington, D.C.: Government Printing Office, 1917), p. 5, hereafter cited as Annual Report 1917.

[27] The Independent, October 25, 1915, p. 120.

[28] Annual Report 1915, pp. 12-13.

that of other world powers.[29] In an age when military aircraft engines of up to 160 horsepower or more were coming into favor, the newest addition to America's air fleet, the Curtiss JN-2, had only a 90 horsepower engine.[30] The total heavier-than-air force consisted of twenty-three aircraft as of December 21, 1915.[31] This force was quite mixed as it included Martin T's and TT's, Curtiss F flying boats, Burgess H's, Curtiss JN2's and JN3's and one Burgess-Dunne armored sea plane.[32] The Curtiss F flying boats were primary trainers, the Martin aircraft advanced trainers, and the Curtiss JN's were the front line reconnaissance force.[33] None of the aircraft were equipped with armament. As pusher aircraft had been condemned in 1914 (for being inherently dangerous in case of a crash landing) all the aircraft, except the sea planes were tractor type.[34] Not only were American aviators

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[29] Army Air Forces Historical Studies: No. 50, "Material Research and Development in the Army Air Arm, 1914-1945," (AAF Historical Office: Headquarters Army Air Forces, 1946), p. 13; and Sweetser, Air Service, pp. 32-33.

[30] "Army Aviation Notes," Aerial Age Weekly, May 24, 1915, p. 225.

[31] USAF Historical Studies: No. 98, "The United States Army Air Arm, April 1861 to April 1917," (Air University: USAF Historical Division, 1958, p. 136, hereafter cited as Study 98.

[32] Ibid., pp.128-136.

[33] "Military Aviation News," Aerial Age Weekly, July 19, 1915, p. 425.

[34] Alfred Goldberg (ed.), A History of the United States Air Force, 1907-1957 (Princeton: D. Van Nostrand Company, Inc., 1957), p. 9, hereafter cited as Goldberg.

forced to fly second rate machines, the American aviation industry had yet to produce a completely reliable aircraft engine.[35] In addition, " . . . the Army own/ed/ no suitable grounds for an aviation field."[36] This last item, noted by the Aerial Age Weekly, July 15, 1915, pointed out the fact that even the Aviation Section's flying school, located at North Island, San Diego, California, was not government owned, but occupied at the pleasure of John D. Spreckles.[37]

In addition to the school, the Aviation Section of the Signal Corps consisted of an Aeronautical Division in the Office of the Chief Signal Officer of the Army, Washington, D.C., several small detachments in Hawaii and the Philippines, and the First Aero Squadron.[38]

The manning of the Aviation Section, as of July 1, 1915, consisted of thirty officers and 177 enlisted personnel. Of these, twenty officers were qualified Junior Military Aviators, eight additional officers were aviation students, and two more were Signal Corps officers. Only twenty of the enlisted

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[35]Annual Report 1915, p. 13.

[36]Aerial Age Weekly, July 5, 1915, p. 365.

[37]Ibid.

[38]George P. Scriven, "Organization and Methods of Administration of the Aviation Section of the Signal Corps," United States Air Force Archives 167.12-4, May 16, 1916, p. 1, hereafter cited as "Organization." (Photocopy of Typewritten Memo.)

men were aviation mechanics and just nine enlisted personnel had received some flight instruction.[39]

The Aeronautical Division was the nucleus of all air activities. Founded August 1, 1907, it had been originally chartered to deal with " . . . all matters pertaining to military ballooning, all machines and all kindred subjects."[40] It remained the single source of Army air activities, both operational and administrative, until July 18, 1914, when Congress passed the efficiency act which created the Aviation Section. From that time on, the Aeronautical Division became an administrative clearing house for the specification of aircraft and equipment, procurement requests, aeronautical data and personnel movements.[41]

The operational, training, and research facilities in 1915 were primarily located at the Aviation School, North Island, San Diego, California.[42] Established December 1913, by General Order No. 79, War Department, the school and its location were an outgrowth of a 1910 invitation by Glenn Curtiss to provide free instruction for three Army Officers.

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[39]Annual Report 1915, p. 9.

[40]J. Allen, "Office Memorandum No. 6," United States Air Force Archives 167, 12-4, August 1, 1907. (Photocopy of Original Memorandum, certified by a Memo for the Record, December 22, 1944.)

[41]"Organization," pp. 1-2.

[42]Annual Report 1915, p. 11.

The southern California location was selected because of its ideal climatic and meteorological conditions. However, the school's remoteness from normal supply and administrative channels created problems. Because of this, and its exposed position to attack from either Mexico or the Pacific Ocean, there existed a reasonable doubt whether San Diego would always remain an ideal school location.[43]

Prior to the school's creation, air training had been conducted in relaxed fashion. Flight instruction followed the sun: summers in College Park, Maryland and at the Wright airplane factory in Dayton, Ohio; and winters at Fort Sam Houston, Texas, Augusta, Georgia, and at the Curtiss factory in San Diego, California.[44] The course of instruction was as varied in level as it was in location. Typical of the period were the informal handwritten progress reports informing the Chief Signal Officer of Lieutenant Henry H. Arnold's training progress, May to June 1911, at the Wright Factory.[45]

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[43]"Organization," pp. 2-4; and Glenn H. Curtiss and Augustus Post, "The Curtiss Aviation Book" (New York: Frederick A. Stokes Company, 1912), pp. 122, 125, 127.

[44]U.S., War Department, Annual Report of the Chief Signal Officer, United States Army, for the Fiscal Year ended June 30, 1912 (Washington, D.C.: Government Printing Office, 1912) p. 24, hereafter cited as Annual Report 1912; Henry H. Arnold, Global Mission (Hutchinson and Company, 1951), p. 24; and Charles DeForest Chandler and Frank P. Lahm, How Our Army Grew Wings (New York: The Ronald Press Company, 1943, pp. 179, 210-211, 242.

[45]Henry H. Arnold, "Letters Addressed to the Chief Signal Officer, U.S. Army," United States Air Force Archives 168,655-2, 20 May 1911 to 10 June 1911. (Photocopy.)

Less typical, but true, were the orders given Foulois in January 1910, when he was told to proceed to Fort Sam Houston, Texas, and "to teach /himself/ to fly." He succeeded, with the assistance of frequent correspondence with Orville and Wilbur Wright, although he had to provide 300 dollars, twice as much as the government provided, of his own funds to keep airborne.[46]

The lack of formal organization did not deter the young aviators from attempting to establish aerial standardization or from military experimentation. Student aviators, by July 6, 1911, were required to pass the flight test prescribed by the Federational Aeronautique Internationale (FAI). This test as modified upward in 1912 and 1913, remained in effect as well as provided the basis for the 1914 "Requirements for Military Aviator Rating," enacted October 27, 1913, by Scriven.[47]

United States aerial military experimentation began January 19, 1910, at a Los Angeles, California air show when Lieutenant Paul W. Beck used a crude bombsight to drop dummy bombs. A year later, January 15, 1911, Lieutenant Myron Crissy, dropped live bombs at an air meet at Tanforan, California. This meet also served as a test for airborne

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[46]"Foulois Record," pp. 3-4.

[47]Chandler and Lahm, How Our Army Grew Wings, pp. 305-313; Arnold, Global Mission, p. 34; Annual Report 1912, p. 25, and Study 98, pp. 58-59.

radio communications by Beck, and aerial photography by Lieutenant John C. Walker from an aircraft piloted by Walter Brookins. Experiments in air to ground firing occurred August 20, 1910, when Lieutenant Jacob E. Fickel fired a rifle at a three foot by five foot target from an altitude of 100 feet. The aircraft was flown by Glenn Curtiss. One month later, Curtiss and Fickel repeated the experiment using a pistol.[48] By July 1912, Brigadier General James Allen, Chief Signal Officer, was able to report tests in radio telegraphy, photography, bombardment, and aerial gunnery all of which " . . . demonstrat/ed/ the possibilities of aeroplanes for offensive warfare."[49] Formal training arrangements soon followed.

In December 1912, the total complement of the temporary College Park, Maryland school (fourteen flying officers, thirty-nine enlisted men, and nine aeroplanes) moved to San Diego, California. The move marked the birth of formal aerial training and the establishment of research facilities.[50]

By July 1915, the aviation school at San Diego was a well-established fact and part of the education system of the United States Army.[51] The school commander was Captain Arthur S. Cowan,

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[48]Study 98, pp. 45-46.

[49]Annual Report 1912, p. 24.

[50]Study 98, p. 73, and Goldberg, p. 7.

[51]"Organization," p. 4.

a Signal Corps Officer, who, although unrated, had been active in aeronautics since 1910, when he relieved Captain Charles DeF. Chandler as Chief of the Aeronautical Division.[52] The school was divided into two major departments: one for training and the other for experimentation and maintenance.[53]

The experimental and repair department provided research and development, material, and depot maintenance services for the Aviation Section. Composed of one officer, Captain Townsend F. Dodd, Military Aviator, one aeronautical engineer, one aeronautical mechanical engineer, and five aviation mechanics, the unit studied, tested, overhauled or rebuilt engines, airframes, accessories, fuels, lubricants, and spare parts.[54] During the fiscal year of 1915, its activities included lubricant tests, propeller balancing, stabilizer tests, very flare pistol experiments, smoke bomb tests, parachute jumps, communications tests in radio telegraphy and aviaphones, bomb dropping, Macy autopilot tests, and the location of submarine mines. In addition to the experimentation, the group designed and constructed ten special type trucks. This fleet provided the First Aero Squadron with a mobile machine shop, several mobile spare part tool cribs, a transportable

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[52] Study 98, p. 19.

[53] Annual Report 1915, p. 11.

[54] Annual Report 1915, pp. 11-12, and Study 98, p. 136.

fuel capability, and an aircraft transport system.[55]

The principal department of the aviation school was the training department. This was subdivided into two major units: a school for officers and a school for enlisted personnel.[56] Courses of instruction, in all phases, were mainly conducted by civilian instructors, although some military flight instructors were used.[57] Professional skills and technical training were the primary subjects as the duties of officers and enlisted men were " . . . approximately 90 percent . . . technical, mechanical, and industrial, /and/ . . . only ten /sic/ percent strictly military."[58] Candidates for either aviator or mechanic training were required to pass an examining board of three experienced aviation officers and two medical officers prior to receiving their certificates of qualification. Further, any officer found inefficient in his aerial duties was immediately returned to line duty.[59]

The course for officers, covering subjects both theo-

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[55]Annual Report 1915, p. 12. Also see various Aerial Age Weekly's.

[56]"Organization," p. 5, and Annual Report 1915, p. 11.

[57]Study 98, p. 141.

[58]Foulois Statement, p. 8.

[59]U.S., War Department, Compilation of General Orders, Circulars and Bulletins, issued between February 15, 1881 and December 31, 1915 (Washington, D.C.: Government Printing Office, 1916), pp. 560-563, and Act of 1914, p. 516.

retical and practical, was taught in two phases, ground and air. The ground phase consisted of aeronautical and mechanical engineering, the theory of flight, the operation, construction and repair of aircraft, accessories and engines, and a course in meteorology. Whenever possible, lessons in the practical aspects of these subjects were conducted in the machine and repair shops.[60] The flying phase began in the Curtiss F hydro-aeroplane. This aircraft was selected as the primary trainer because of its great stability and the accessibility of water landing areas. Under the instruction of Francis "Doc" Wildman, the student first mastered straight and level flights, then turns, and finally landings. The course of instruction varied according to ability, but generally after five flying hours, the student progressed to land machines. Oscar Brindley, another civilian, taught the second flight phase by giving flying instruction in the Martin airplanes. Once the student soloed, he was turned over to the officer in charge of training, who decided if the student should continue training. If the novice was found acceptable, he continued his solo work until he could pass the civilian FAI pilot test. Next, the young aviator trained in cross-country flying and navigation prior to an examination and flight test for a rating as a Junior Military Aviator. This comprehensive

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60 Annual Report 1915, p. 11; Aerial Age Weekly, May 10, 1915, p. 177; and "Organization," p. 5.

test administered by three officers determined beyond question the pilot candidate technical capability. If he failed to satisfy all three check instructors, he was eliminated.[61]

The flight course for the enlisted personnel selected as pilots paralleled the flight instruction phase of the officers. The majority of enlisted men selected for technical training were trained as aviation mechanics. This course, under the guidance of George Hallett, one of the nation's expert field aviation mechanics, imparted the knowledge necessary to maintain air frames; re-rig aircraft; make fittings, ribs, spars, struts, skids, and wires; cover fuselage and wing parts with canvas and dope; remove, replace, and repair tires; and clean, overhaul, rebuild, and adjust aircraft engines. This course was highly practical as it was conducted in the shops and on the flying field. After completing the mechanic course, the mechanic candidates were given a phase test. If they achieved a grade of 75 percent or better, and passed a physical examination, they received a certificate of qualification. Having successfully completed their course of technical instruction, the new aviators or mechanics could anticipate possible assignment to the only operational unit of the Aviation Section, the First Aero Squadron.[62]

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[61] "Organization," pp. 5-6; Study 98, p. 141; and Annual Report 1915, p. 11.

[62] Study 98, pp. 141-142; and Annual Report 1915, p. 11.

The First Aero Squadron was the aerial reconnaissance unit of the Army. Originally formed as a provisional squadron at Texas City, Texas, March 5, 1913, it had responded to the tense Mexican relations that resulted from the February 22, 1913, Mexican coup d'etat led by Victoriano Huerta.[63] By June 15, 1913, it was virtually disbanded when its equipment and personnel were transferred to and integrated into the Aviation School at San Diego, California.[64] Approximately two years later, July 1, 1915, the First Aero Squadron was equipped with new aircraft and restructured as a field capable unit.[65]

The organization of the First Aero Squadron, prior to July 1, 1915, consisted of a Squadron Headquarters, commanded by Cowan and manned by an adjutant, Lieutenant Roy C. Kirkland, and five enlisted personnel. The operating sections were two companies, the First and the Second. The latter units commanded by Foulois, and Lieutenant Walter R. Taliaferro, respectively, had six and seven officer aviators and thirty-two and twenty-five enlisted men. This organizational structure proved inadequate because of the reliance it placed upon Company Commanders,

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[63]"Field Order No. 1," Headquarters, First Aero Squadron March 5, 1913, United States Air Force Archives 168.650 H-7, Official Unit Histories. (Typewritten.)

[64]Study 98, p. 79; and Chandler and Lahm, How Our Army Grew Wings, p. 256.

[65]"Brief History of the First Aero Squadron," Official Histories, United States Air Force Archives 168.650 H-7, (Typewritten.); and Aerial Age Weekly, June 14, 1915, p. 297.

and the lack of support it gave them.[66]

On July 1, 1915, Foulois was given command of the First Aero Squadron. He was exceptionally well qualified for the role as he was one of the first three military aviators in the United States, and had been on continual duty with the Aviation Service since July 1908, except for a one year "Manchu Law" return to the Infantry. Foulois, a graduate of the Army Signal Corps School, Fort Leavenworth, Kansas, had seventeen years military experience. He was commissioned in the field, February 2, 1901, when he was on duty with the Infantry in the Philippine Islands. He had been active in the technical, operational, material, and experimental details of aviation. He had evaluated foreign aircraft designs at Nancy, France in September 1909. He had flown the first United States dirigible balloon in 1908. He had been the only United States aviator in 1910. He had designed the first set of wheels for the Wright airplane. He had helped construct the first aerial radio receiving set used in the United States. He had participated in numerous military maneuvers and aerial experiments. During the eighteen months prior to his assumption of command, Foulois had reorganized the training system of the Aviation Section, helped outline the new organization of the First Aero

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66"First Aero Squadron," Official Histories, United States Archives 168,650 R-7 (Typewritten Organization Chart.); and Study 98, p. 146.

Squadron, and participated in the design of the mobile truck fleet, machine shop, and field tent hangers.[67]

The First Aero Squadron as reorganized consisted of twelve sections: headquarters, supply, engineering, transportation, and eight flying sections. Besides Foulois, there were fourteen officers, eighty-five enlisted men, and one civilian mechanic, Jacob Bailey. Its equipment consisted of eight Curtiss JN's, one for each crew of two pilots, fourteen trucks for fuel, supply, and aircraft transport; two machine shop trucks, and six motorcycles.[68] All the officers were responsible for the maintenance of their aircraft, and could fly no one else's, except in an emergency.[69] Because of the motorized nature of the unit, all officers were taught to drive motor trucks and motorcycles as well as the unit's primary equipment: the Curtiss JN-2.[70]

The Curtiss JN-2 was representative of the latest aircraft produced by the United States. Underpowered in an era when 160 horsepower engines were being adopted, it was barely comparable to a European trainer.[71] Distinguished by its

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67"Foulois Record," pp. 2-5, and Aerial Age Weekly, June 14, 1915, p. 297.

68Aerial Age Weekly, June 14, 1915, p. 297.

69Study 98, p. 146.

70Aerial Age Weekly, May 31, 1915, p. 257.

71"Army Aviation Notes," Aerial Age Weekly, May 24, 1915, p. 225.

" . . . low rakish lines, an effect produced by staggered planes," and a long, narrow and unusually deep fuselage, the JN series became an inspiration to many young airmen.[72] The aircraft's wing span measured 43 feet 7-5/10 inches and was 26 feet 10-1/2 inches in length. It had an empty weight of 1170 pounds and could carry a useful load of 680 pounds, consisting of 200 pounds of fuel, 35 pounds of water, 30 pounds of oil, 150 pound pilot, and a 265 pound cargo or passenger.[73] The latter was placed or sat on a wicker basket seat.[74] Powered by a 90-100 horsepower OX engine, it had a top speed of 80 miles per hour and a stall speed of 40 miles per hours. It could climb 4000 feet in ten minutes and could fly at full throttle for 4 hours and 24 minutes, cruise for 6 hours and 12 minutes or could maintain a duration flight for 9 hours. Its price, with standard instruments, tachometer, oil gauge, and tool kit, was 7500 dollars F.O.B. the Curtiss factory.[75] Curtiss advertised that it was " . . . generally regarded as

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[72]"Military Aviation News," Aerial Age Weekly, July 19, 1915, p. 425.

[73]Curtiss Aeroplane Co., Curtiss Military Aeroplanes (Buffalo: Curtiss Aeroplane Co., 1916), United States Air Force Archives 168.653, p. 3, hereafter cited as Curtiss 1916. (Advertising brochure.)

[74]"Military Aviation News," Aerial Age Weekly, July 19, 1915, p. 425.

[75]Curtiss 1916, pp. 3, 10.

an unusually safe machine on account of its rigid construction, its stability in rough weather conditions and its ease of control. . . . ."[76]

The first JN was delivered to San Diego, California, May 10, 1915 for acceptance tests. These were conducted by Raymond V. Morris, chief test pilot of the Curtiss California factory.[77] On June 21, 1915, the remaining seven Curtiss machines arrived at San Diego.[78] One month later, July 26, 1915, the First Aero Squadron departed San Diego, California on the 3:10 p.m. train enroute to Fort Sill, Oklahoma, for duty with the Artillery School of Fire.[79] The unit remained there until November 19, 1915, when it conducted the world's first aerial move, by flying the aircraft to Fort Sam Houston, San Antonio, Texas.[80]

The departure from San Diego, California by the First Aero Squadron marked a turning point for Army air power.

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[76]Curtiss, Curtiss: Flying Boats, Aeronautical Motors, Aeroplanes, Hydroaeroplanes (Buffalo: The Curtiss Aeroplane Co., 1917), United States Air Force Archives 168.653, p. 11. (Advertising brochure.)

[77]"Army Aviation Notes," Aerial Age Weekly, May 31, 1915, p. 257.

[78]"Military Aviation News," Aerial Age Weekly, July 19, 1915, p. 425.

[79]"Military Aviation News," Aerial Age Weekly, August 9, 1915, p. 507; and "Foulois Record," p. 5.

[80]"Foulois Record," p. 5; Study 98, p. 149; and Flying, January 1916, p. 819.

The unit's forthcoming activities, both at Fort Sill and Fort Sam Houston, and the growing tensions along the Mexican-United States border would soon publicize the activities, the deficiences, and the requirements of United States military air power.

The Aviation Section of the Signal Corps, United States Army was an energetic, but small service in 1915. It had flown 3458 flights, for a duration of 1269 hours and 50 minutes. In this time it had transported 1730 passengers, established two new American altitude records of 17,441 feet for solo flight and 11,690 feet for dual flight. The service had set new duration flight records of 8 hours and 53 minutes solo and 7 hours and 5 minutes dual. The Aviation School had conducted important tests in bombardment, communications, mine detection, emergency equipment, and aircraft improvements. The First Aero Squadron had begun to prove its capability to support artillery fire, make rapid deployments and support front line surveillance activities. Despite these, and other lesser achievements, the Aviation Section remained a crippled unit. It needed expansion in funds, manning, personnel procedures and equipment.[81] Until these deficiences were corrected it would fail to be a " . . . service commensurate with the needs of the country and suitable to the requirements of an army. . . ."[82]

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[81] Annual Report 1915, p. 12

[82] Ibid., p. 53.

CHAPTER III

THE FIRST AERO SQUADRON IN THE FIELD: 1913-1915

Military aviation was first employed tactically during the Mexican revolution. Both Venustiano Carranza and Francisco (Pancho) Villa maintained air forces for use in limited interdiction and reconnaissance roles.[1] The Mexican revolution also provided the reasons for United States Army aviation to first see field service.[2]

The first attempt, by the Army, to employ air power occurred as a result of General Victoriano Huerta's successful 1913 coup d'etat. Captain Charles DeF. Chandler, Commanding Officer, Aviation School, Augusta, Georgia, received orders from the War Department, February 25, 1913. He, his men, and equipment were to proceed to Texas City, Texas, as soon as possible, and commence duty with the Second Division. Three days later, February 28, 1913, the unit of five officers, twenty-one enlisted men, and their aircraft, departed on a

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[1]U.S., Department of the Air Force, A Chronology of American Aerospace Events (Air Force Pamphlet AFM 190-2-2, March 16, 1960), p. 13, hereafter cited as Chronology; and Benjamin D. Foulois and C. V. Glines, From the Wright Brothers to the Astronauts (New York: McGraw-Hill Book Company, 1968), p. 117, hereafter cited as Foulois Autobiography.

[2]Chandler and Lahm, How Our Army Grew Wings, pp. 253-254.

special train of eleven cars. Arriving at Texas City, Texas, March 2, 1913, they established a camp, assembled aircraft, and commenced flying a few days later.[3] Their arrival had been preceded by that of Captain Frederick B. Hennessy, Aviation Section, who selected the airfield site; one that was suitable for land and seaplane operation. Hennessy remained as the squadron adjutant. A few days later, two student flyers, Lieutenants Eric L. Ellington and Loren C. Call arrived with Airplane 17 from the Palm Beach, Florida, flying school. By March 5, 1913, the First Provisional Aero Squadron was formed.[4]

The Squadron organization consisted of an administrative section, and two companies with four and five aircraft respectively. Captain Chandler retained command, but, as he was not a pilot, Lieutenant Milling was appointed " . . . Senior Instructor and his orders . . . were to be obeyed without regard to rank."[5]

In preparation for a possible invasion into Mexico, the men began practice flying as weather permitted. Their activities were limited to cross-country flying and maneuvers. The

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[3]Chandler and Lahm, How Our Army Grew Wings, pp. 253-254.

[4]Study 98, p. 74.

[5]First Aero Squadron, Field Order #1, March 5, 1913, United States Air Force Archives 168.650 H-7. (Photocopy.)

embryonic aviators proved their ambitions by setting endurance records and spotting "enemy" units, but were not put to a real test as the invasion of Mexico never occurred. By June 14, 1913, the Mexican issue was temporarily settled, and the bulk of personnel and aircraft were transferred to San Diego, California.[6]

The next opportunity for the fledgling army air arm to prove itself in combat support came in March 1914. Tense relations over Vera Cruz led to a War Department request for the North Island, California, school to send five qualified aviators, thirty enlisted men, and three Burgess tractor aircraft to Fort Crockett, near Galveston, Texas. Captain Foulois was given command; and accompanied by Lieutenants Milling, Walter H. Taliaferro, Joseph E. Carberry, Townsend F. Dodd, and a medical officer, Adna G. Wilde, he departed for Texas, April 26, 1914. On May 6, 1914, Lieutenant Joseph C. Harrow joined the detachment. In addition, arrangements were made at North Island to increase flying training in order to provide for more aviators. Once again the flyers failed to see combat action. While the navy flew at Vera Cruz, the army remained in Texas for three months without ever uncrating their aircraft. They returned to California, July 13, 1914.[7]

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[6] Study 98, pp. 76-79; and Chandler and Lahm, How Our Army Grew Wings, pp. 254-256.

[7] Ibid., p. 276; and Study 98, pp. 105-106. New York Times, April 23, 26, and 27, 1914 carried articles emphasizing the role of United States' Navy aircraft at Vera Cruz, Mexico.

The Mexicans, however, did utilize the airplane in actual combat as an instrument of war. On May 10, 1913, two American citizens, Didier Masson, pilot, and Thomas J. Dean, Bombardier, bombed a Mexican Federal Gunboat in Guaymas Bay, Mexico, from a Glenn Martin pusher aircraft.[8] This first in the annuals of aviation history, was in support of Pancho Villa's army. Seven months later, in November 1914, Phil Rader, another American flying for Huerta, engaged a Carranzista pilot, Dean Ivan Lamb, also a citizen of the United States, over Naco, Mexico, in the first known aerial combat. A dozen pistol shots were exchanged.[9]

The Mexican interest in aircraft continued as did the revolution. Carranza and Villa each vied with each other to hire American fliers, offering as much as 300 dollars a week in gold for the services of men such as Charles F. Niles and W. Leonard Bonney.[10] By April 26, 1915, Villa's air force consisted of six new Wright airplanes, and the Aerial Age Weekly reported that " . . . both factions have shown much activity of late in the acquisition of aeroplanes."[11]

On March 13, 1915, in response to a request by Brigadier General Frederick Funston, Commander, Southern Department, a

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[8]New York Times, May 20, 1913; and Chronology, p. 13.

[9]Ibid.

[10]"Niles Quits Mexico," Aerial Age Weekly, April 5, 1915, p. 64; and "Bonney Goes to Fly in Mexico," Aerial Age Weekly, April 26, 1915, p. 128.

[11]Ibid.

detachment of the Aviation Section was alerted for duty with the border patrol at Brownsville, Texas. Repeated warnings to both Mexican revolutionary factions had not resulted in a decrease in border incidents. Funston hoped to use the aircraft to locate the position of Villa's artillery in case it became necessary to disable it.[12]

On April 14, 1915, Lieutenants Thomas DeW. Milling and Bryon Q. Jones departed San Diego, California, by rail with aircraft Signal Corps Airplane 31, and a detachment of eight men. Three days later they arrived at Brownsville, Texas, and established a camp at the west end of a cavalry drill field. Their airplane, a Martin T. Curtiss, powered by a 75 horsepower OX engine, was assembled and tested by April 19, 1915. On Tuesday afternoon, April 20, 1915, the first mission was flown, with Jones as pilot and Milling as observer. Cruising at an altitude of 2600 feet, they flew along the border easily observing the Mexican trench lines and correcting plot errors on their canvas chart. Repeated machine gun fire from the Mexican side was reported by American ground units, but none struck the biplane nor its occupants.[13]

A later flight, that same day, grounded Funston's air force. Jones, accompanied by Corporal Arnold Reuf, hit a

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[12]Study 98, p. 145; for border incidents see Foreign Relations, pp. 796-798.

[13]"Military Aviation Notes," Aerial Age Weekly, May 17, 1915, p. 208.

ditch while taxiing in the high grass of the drill field. The fuselage of the aircraft was snapped, and the longerons were broken beneath the motor bed.[14] A request was made for another fuselage, or a new machine, but Lieutenant Colonel Samuel Reber, Officer in Charge, Aviation Section, refused to authorize the replacement. On April 26, 1915, this decision was overruled by the Adjutant General, Tasker H. Bliss, and Airplane 37, another Martin military tractor was shipped express from San Diego, California. A few weeks later, May 18, 1915, Lieutenant Colonel Samuel Reber, Chief of the Air Service, requested the return of the detachment, as the artillery it was to support had been withdrawn. On May 27, 1915, Jones, Milling, and their men and equipment returned to North Island, California.[15]

The accomplishments had been few. Villa had withdrawn his troops, April 17, 1915, three days before the first mission was ever flown. Neither Airplane 31 or Airplane 37 was equipped with radio equipment, and as the terrain did not permit a card signaling system, no workable method of communication between spotter and artillery existed. Finally, insufficient field work had been accomplished to determine the number of spare parts and maintenance support necessary for aircraft deployed in tactical operations.[16]

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[14] Ibid.

[15] Study 98, p. 145; and "Army Aviation Notes," Aerial Age Weekly, May 24, 1915, p. 224.

[16] Study 98, p. 145.

When, on July 26, 1915, the First Aero Squadron, Foulois commanding, departed San Diego, California, for duty with the Artillery School, Fort Sill, Oklahoma; it was anticipated that maintenance requirements and artillery control procedures would soon be established.[17] The rail caravan consisting of sixteen cars, left San Diego at 3:10 p.m. Three days later, July 29, 1915, the unit unloaded automobiles, airplanes, trucks, motorcycles, and horses at Fort Sill, Oklahoma.[18] Suitable quarters and facilities were lacking, therefore the men expended their efforts until August 13, 1915, in construction projects. With the completion of messing, storage, and maintenance facilities, the aerial activity increased.[19]

While at Fort Sill, the First Aero Squadron concentrated on artillery observation, field tests of varied reconnaissance equipment, and the evaluation of their inadequate airplanes. Engine malfunctions and poorly designed airframes continually hampered and discouraged the aviators.[20]

Aerial operations commenced on August 10, 1915, and within three weeks the unit was non-operational. The first major problem faced was that of obtaining replacement engines. Of

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[17] Annual Report 1915, p. 12.

[18] "Military Aviation News," Aerial Age Weekly, August 9, 1915, p. 507.

[19] Study 98, pp. 146-147.

[20] "Foulois Record," p. 5.

twelve replacement powerplants, six were immediately condemned, and a seventh had to be overhauled before it was used. By September 1, 1915, three aircraft: Airplanes 42, 45, and 48, were out of commission for parts, one was grounded for general maintenance, another for engine work, two were detached to the Southern Department at Brownsville, Texas, and the eighth aircraft was lost in an accident.[21]

The crash, which destroyed the eighth aircraft occurred August 12, 1915. It was attributed to bad weather and poor flying technique. The aircraft was a total loss. Captain G. H. Knox, the observer, was killed and R. B. Sutton, the pilot, suffered serious injury.[22] The accident amplified a growing concern in the squadron over the inadequacies of the new service machine, the JN-2, to perform a combat role.

The JN-2, hailed by the press as a "rakish" addition in July 1915, was considered by the aviators to be underpowered, oversensitive to control and cheaply constructed. Both Captain Cowan, at the Air Service School, and Lieutenant Colonel Reber were aware of the deficiencies. Cowan wrote Reber that he knew the aircraft were unsafe, but had failed to notify the flyers because " . . . there is a tendency among the younger officers to get rather panicky when ques-

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[21] Study 98, p. 147.

[22] "Military Honors for Dead Army Airmen," Aerial Age Weekly, August 30, 1915, p. 569.

tions of safety are brought out.* Ten of the twelve aviators of the First Aero Squadron felt it to be unsafe. Only Foulois and Milling, the two most experienced aviators, maintained the machine, although not perfect, was suitable within limitations.[23]

Difficulties with the JN-2 had been, and were being experienced elsewhere. Carberry, the first military aviator to fly the JN-2, June 4, 1915, had found it underpowered, but he had still recommended its acceptance. The engineering section at the Aviation School had also noted the inadequacies of the JN-2. The engineering chief, Captain Virginius E. Clark, had threatened to condemn the entire order in July 1915, as he considered the airoraft unsafe. He was supported in his findings by wind tunnel tests conducted in August 1915, that confirmed longitudinal instability at angles of 12, 14, and 15.5 degrees. The report of these tests prompted Brigadier General Scriven, the Chief Signal Officer, to call Glenn Curtiss to Washington, D.C. to discuss the situation. Curtiss readily agreed to convert all JN-2's into JN-3's: the necessary modifications were to be accomplished in the field. This required the installation of new upper wings, stabilizing fins, rudders, and the improved OX engine. In order to carry out

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23*Transcript of Court Martial of Lieutenant Colonel Lewis E. Goodier, Judge Advocate," United States Air Force Archives, 168.650316, pp. 477-480, hereafter cited as Goodier Court Martial. (Typewritten.)

the work, Curtiss sent one expert mechanic to Fort Sill, Oklahoma and Brownsville, Texas.[24]

While the main unit remained at Fort Sill, Oklahoma, a detachment of the First Aero Squadron, consisting of four officers and fifteen enlisted me equipped with two aircraft, arrived at Brownsville, Texas, on August 18, 1915. The aviators, Lieutenants Morrow, Jones, Arthur R. Christie, and Harry Harms, rapidly discovered that the landing field used for similar purposes, in April 1915 by the Martin machine was too small for the slow climbing, heavy, underpowered JN-2. The new service machine required a longer runway. Morrow, the senior officer, requested permission from the Chief Signal Officer to prepare and use a larger, but rougher field six miles from Brownsville, Texas. Permission was granted and the aviators became airborne, only to experience severe flight difficulties in rough air. These difficulties were so severe, that on September 5, 1915, Morrow crashed Airplane 46. As a result of the injuries he sustained, he was relieved of command, and Captain Townsend Dodd was ordered from San Diego, California, to replace him. In the interim, Lieutenant Jones assumed temporary command, and in this capacity, he reported, at the direction of the Commanding Officer, Brownsville

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[24] Ibid., pp. 477-478; Study 98, pp. 148, 149. Edgar S. Gorrell wrote in October 1932 that only two of the First Aero Squadron's JN-2's had OXX engines at the time of the Mexican Punitive Expedition.

District, the dangerous characteristics of the JN-2. By September 13, 1915, Funston prohibited further flying of the airplane for artillery adjustments unless totally necessary.[25] The detachment, limited by its equipment, had accomplished little other than serving as a target for Carranza's soldiers.[26]

The First Aero Squadron, without usable airplanes, cancelled all operations with the field artillery until October 14, 1915. At that time, with modifed aircraft, tests were resumed and continued until the squadron left Fort Sill, Oklahoma in November 1915.[27]

The constant lack of in-commission aircraft limited the success of the experiments of the First Aero Squadron and the Fifth Field Artillery. However, several valuable lessons were learned. It was clearly demonstrated that trained aerial observers, rather than artillery officers, were needed as artillery spotters. The value of the automatic aerial camera in photographing mosaic overlays for map making was explored. This resulted in several valid suggestions to improve the Arthur Brock automatic camera.[28] Aircraft service tests, after the modification of JN-2's to JN-3's, were conducted which

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[25] Ibid., pp. 147-148.

[26] Letter, Secretary of State to the Confidential Agent of the Constitutionalist Government of Mexico, September 10, 1915, in Foreign Relations 1915, p. 810; and "U.S. Aviators Fired on - Complete Air Squadron Needed," Aerial Age Weekly, September 13, 1915, p. 613.

[27] Study 98, p. 147. [28] Ibid.

eventually " . . . save/d/ the lives of many . . . flying officers . . . in the Mexican Punitive Expedition. . . ."[29] Finally, the squadron had an opportunity to test and modify its mobile equipment and maintenance procedures.[30]

The officers of the Army Air Service had long desired a permanent flying center one that would become " . . . the army aviation center . . . as well as a finishing school for army aviation students. . . ."[31] Fort Sam Houston, San Antonio, Texas was selected as the site of the new center. In March 1915, Foulois had been ordered to Fort Sam Houston to prepare plans and estimates for the new airfield location. The site, four miles north of the Fort proper contained two old hangars. Ten new hangars were to be erected, as were housing, maintenance, and messing facilities.[32] Foulois had submitted an estimate for 183,200 dollars for the project, but Congress appropriated only 49,000 dollars. The funds were not satisfactory, but as they were all that were available, Colonel Reber directed that " . . . Foulois will have to get it into his head that we will have to get along with the money we have and not the money we ought to have."[33]

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[29]"Foulois Report," p. 5. [30]Study 98, p. 147.

[31]"War Proving Boon to Aero Activity in Texas," Aerial Age Weekly, June 21, 1915, p. 321.

[33]Letter, Reber to Cowan, March 29, 1915, in "Goodier Court Martial."

Because of these limited funds, only a machine shop, troop barracks, a stable, and two bachelor officer quarters were completed by November 1915. Orders were issued November 11, 1915, for permanent deployment of the unit to the San Antonio, Texas, area.[34]

The trip from Fort Sill, Oklahoma to Texas, began November 19, 1915. Foulois, eager to increase operational experience and advertise mobile military air power, requested and gained permission to move by air.[35] In order to permit the motor caravan and airplanes to reach their destinations simultaneously, five enroute stops were planned. The itinerary called for landings at Wichita Falls, Fort Worth, Waco, Austin, and San Antonio, Texas.[36] It was ". . . the first time any organized air unit in any army had undertaken a [self] movement . . . ." and the move was a success.[37]

The aircraft and vehicles travelled the 350 miles in seven days. The aerial movement was without serious incident and the only damage was one bent arch and one broken tail skid--costs of repairs Fifty Cents [sic]."[38] The only flaw

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[34]Benjamin D. Foulois, "Report on Cross-Country Flight from Fort Sill, Oklahoma to Fort Sam Houston, Texas by First Aero Squadron, Signal Corps, U.S. Army, November 19 to 26, 1915," in "U.S.A. Aero Squadron's Fort Sill-Fort Sam Houston Flight," Flying, January 1916, p. 819, hereafter cited as Cross Country Report; and Annual Report 1915, p. 13

[35]"Foulois Record," p. 5.

[36]Cross Country Report, pp. 819, 831-832.

[37]"Foulois Record," p. 5.

[38]Ibid.

was the loss of a Jeffery truck, destroyed during a gas stop, November 21, 1915.[39]

The personnel of the squadron functioned exceptionally well. Captain Benjamin D. Foulois made special comment of the ". . . constant care and watchfulness . . ." the enlisted maintenance men provided the aircraft.[40] They often travelled, on one meal a day, all day by truck and motorcycle, only to work late at night in order to prepare the aircraft for the next day's flying.[41]

The impression on the public was immense. Crowds swarmed the aircraft at each landing spot. After the first stop at Wichita Falls, Texas, where "each aviator was kept constantly on guard over his aeroplane to protect it from damage by the crowds of people . . ." it became necessary to procure police protection and roped-off landing and work areas.[42] The pilots were entertained at banquets by various city officials enroute. Foulois, speaking on these occasions, sold air power and the need for its future growth. He chided " . . . businessmen who /were/ interested only in civil affairs . . . and /had/ not the time to think of preparedness."[43]

Operationally, the journey proved the value of the spe-

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[39] Cross Country Report, p. 831.

[40] Ibid., p. 832. [41] Ibid. [42] Ibid., p. 831.

[43] "Army Aviators at Fort Worth, Texas," Aerial Age Weekly, December 6, 1915, p. 276.

cially designed motor equipment and pointed out some obvious needs for future cross-country military air operations. The trucks, carrying loads up to 3000 pounds, stood the test of rough roads and deep sands enroute. On occasion, some had broken through the flimsy bridges, but the self-contained wrecker equipment enabled the trucks to continue to destination.[44]

Despite the mobility offered by the trucks, and the more rapid movement of the most skilled aircraft mechanics by motorcycle, the exercise proved beyond any doubt that it was

" . ... a physical impossibility for any land transportation system to keep up the pace set by aeroplanes in flight."[45]

Foulois recommended that suitable landing fields, in the future, should be selected. They should, he continued, be located near lines of communication and transportation for ease of supply, and have facilities to protect the aircraft from the elements of weather.[46]

Although the aviators all successfully reached San Antonio, Texas, it was apparent that adequate aeronautical navigation charts did not exist. The maps used, which were Geological Survey Sheets, scale 1:12500, compiled in the 1880's, were outdated and therefore could not be depended on. Foulois suggested that possibly the more modern Post Office

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[44] Cross Country Report, pp. 819, 831.

[45] Ibid., p. 832. [46] Ibid.

maps, if modified by the addition of terrain features, could be used by aviators.[47]

As the new facilities were not ready for occupancy until January 5, 1916, the First Aero Squadron spent November and December 1915, at Fort Sam Houston, Texas.[48]

In January 1916, with the units move to new quarters, the commander of Fort Sam Houston queried the Adjutant General: would the new airfield facility be a part of Fort Sam Houston, Texas? Foulois swiftly blocked what he viewed as an attempt by the local commander to control the aviation unit. He persuaded the Chief Signal Officer that it was best for the army to maintain separate local administrative control. As a result, the First Aero Squadron became the Aeronautical Section of the Southern Department. With its establishment as a separate entity, the squadron busied itself moving into new quarters and building roads, walks, drains, and a landing field.[49]

On January 17, 1916, a request for two aircraft for artillery control experiments at Fort Sill, Oklahoma, was issued by the Adjutant General. Foulois objected on the grounds that the aircraft were no longer serviceable after the six months of field operations. He argued that the fliers lacked adequate winter flying gear, and that the experiments

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[47] Ibid.

[48] Study 98, p. 160.

[49] Ibid.

could be better accomplished at Fort Sam Houston, Texas, after the entire squadron had sufficient time for systematic training in the rigors of military flying. Foulois' opinion prevailed and on February 15, 1916, the Chief Signal Officer decided that the detachment would not be sent until the unit was more adequately prepared for field service.[50]

In September 1915, a reporter commented in the Aerial Age Weekly, on the Mexican issue and air power, by stating "What is needed is a complete air squadron and a firm policy . . . ."[51]

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[50] Ibid.

[51] "U.S. Aviators Fired On - Complete Air Squadron Needed," Aerial Age Weekly, September 13, 1915, p. 613.

CHAPTER IV

BORDER INCIDENTS: 1915-1916

From 1910 to 1920, Mexico was gripped by a violent social revolution. The revolt generated destruction that unsettled and scourged the Mexican countryside, and touched all strata of Mexican society. The chaos and fury spilled across Mexico's northern boundary into the United States, creating incidents of pillage and depredation. By 1915, Mexico was considered as " . . . a thorn in our side."[1]

The United States and Mexico share a common boundary of over 1700 miles that stretches from the Gulf of Mexico to the Pacific Ocean. It follows the Rio Grande for more than 1000 miles through desolate sparsely settled country, turning due west at El Paso, Texas, toward the Continental Divide.[2] Its bordes security in 1915, was the responsibility of Brigadier General Frederick Funston, Commander, Southern Department, United States Army.[3]

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[1]Caspar Whitney, "Why Mexico is a Thorn in Our Side," The Outlook, May 5, 1915, p. 21.

[2]Harry A. Toulmin, Jr., With Pershing in Mexico (Harrisburg: The Military Service Publishing Company, 1935), pp. 17-25.

[3]U.S. War Department, Annual Report Commanding General Southern Department (General Frederick Funston) for the Fiscal Year ended July 1, 1916, National Archives, AGO 2480591, p. 1, hereafter cited as Funston. (Microfilm.)

The Southern Department had reacted to border disturbances as early as 1910, when in response to growing concern over the early activities of Mexican revolutionaries, troops had been dispatched to Del Rio and Eagle Pass, Texas. They were authorized to aid civilian officials in maintaining United States neutrality laws, but they were not given permission to cross into Mexican territory.[4]

As the internal situation in Mexico deteriorated, the United States' troop strength along the border increased, reaching 20,000 men on July 1, 1915 when Funston reported, ". . . the entire border line from the mouth of the Rio Grande to San Diego, California was patrolled."[5] These troops were instructed to provide all possible protection for American life and property, to warn Mexican forces along the border to refrain from endangering American life and property, and if necessary, to use force to prevent Mexican destruction on the American side.[6]

Repeated United States' warnings had little effect on the Mexican commanders, who claimed that the raiders were deserters. On August 28, 1915, Secretary of State, Robert Lansing, commented on the Mexican indifference to the activities in the Brownsville,

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[4]Letter, Secretary of War to Secretary of State, January 26, 1916, U.S., Papers Relating to the Foreign Relations of the United States 1916 (Washington D.C.: Government Printing Office, 1925), p. 473.

[5]Ibid.; and Funston, p. 1.

[6]Ibid., p. 3.

Texas area, warned Carranza to take corrective action. Otherwise, the Secretary of State stated, the situation " . . . might easily lead to most serious consequences."[7]

Funston, anticipating a general outbreak along the border, requested from the Secretary of War, August 30, 1915, additional troops to be used as a preventive measure because "the time for economy had passed . . . and action . . . should be taken at once."[8]

In the period between July 1, 1915, and March 7, 1916, twenty-seven raids were perpetrated on United States' soil. These raids resulted in 9 troopers killed, 16 troopers wounded, 6 civilians dead, 1 civilian wounded, 2 civilians captured by Mexicans, 21 horses killed or stolen, 110 head of cattle rustled, as well as the destruction of farm houses, bridges, stores and the theft of ammunition, arms, and saddles.[9]

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[7]Telegram, Secretary of State to Special Agent Silliman, August 28, 1915, U.S., Papers Relating to the Foreign Relations of the United States 1915 (Washington, D.C.: Government Printing Office, 1924), p. 805, hereafter cited as Foreign Relations 1915.

[8]Telegram Extract, Funston to Secretary of War, August 30, 1915, Foreign Relations 1915, p. 806.

[9]U.S., War Department, "Annual Reports of the Fiscal Year 1916 by Major General Frederick Funston," AGO File 243231, Box 141 EN National Archives, Washington, D.C., pp. 16-19, hereafter cited as "Funston Report." (Photocopy of typewritten Report.) A compilation of all border incidents excluding those that were classed as purely revenge or for cattle rustling. The latter were assumed a normal occurrence for the area.

In addition to the raids, incidents of gun shots northward across the entire border from Brownsville, Texas, westward were increasing. A few were truly accidental, a result of clash between Villa and Carranza: more were planned.[10] Several involved operations up to seventy men with directed fire from fortified positions.[11] On one occasion, a group of Mexican soldiers led by Carranzista officer crossed the border and attacked a detachment of American soldiers.[12] As 1915 progressed into 1916, the dispatches of the Southern Department contained ever-increasing reports of incidents against United States troops, citizens, and aircraft.

In order to discharge the responsibility of border patrol, the Southern Department divided the 1700 mile border that separated Mexico from the United States, into seven cavalry districts. The districts were augmented by camps and garrisons at Laredo and Eagle Pass, Texas; and Douglas, Naco, Nogales, and Yuma, Arizona. The border patrol was almost entirely a function of cavalry units. As the raiding increased, greater

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[10]Translation, Private Correspondence of the Official in Charge of Foreign Relations and Justice, March 27, 1915, Foreign Relations 1915, p. 795; and Letter, Funston to Adjutant General, November 2, 1915, Foreign Relations 1915, p. 819.

[11]Letter, Secretary of State to the Confidential Agent of the Constitutionalist Government, October 6, 1915, Foreign Relations 1915, p. 815; and Report, Funston to Secretary of War, September 17, 1915, Foreign Relations 1915, p. 812.

[12]Telegram, Acting Secretary of State to Special Agent Belt, October 1, 1915, Foreign Relations 1915, pp. 812-813.

consideration was being given in military circles, to the use of infantry as a means of containment.[13]

As the border became more and more disturbed, the American public and Congress became ever more anxious to correct the Mexican situation. On January 6, 1916, the Senate adopted a resolution that initiated an investigation into the Mexican Revolution, its impact on United States' property, the assurances granted by the Mexican government to protect American lives, and the actions and instructions given the United States' military to defend the rights of American citizens.[14]

Four days later, January 10, 1916, Pancho Villa became the chief Mexican antagonist of the United States. In a carefully planned act, meant to provoke an international incident, Villista bandits led by Pablo Lopez stopped a train at San Ysabel, Mexico. Eighteen United States mining engineers, armed only with safe conduct passes issued by the de facto government, were made to disembark from the train. They were stripped of their clothing and then murdered in cold blood.[15]

The reaction was immediate. The news media of the United States, aroused over continual Mexican incidents, demanded: "if Carranza and his defacto government cannot protect [Americans] . . . the President should send armed forces into

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[13]"Funston Report," pp. 1-2.

[14]Senate Resolution submitted by Mr. Fall, January 6, 1916, Foreign Relations 1916, pp. 463-464.

[15]The Independent, January 24, 1916, p. 113.

Northern Mexico."[16] Secretary Lansing demanded that Carranza punish the murderers and the Senate debated the wisdom of armed United States' intervention.[17] Carranza declared Villa, Rafael Castro, and Pablo Lopez outside the law, but little effort was made to arrest them.[18] Instead, Pancho Villa and his force of 300 men moved at will throughout the Mexican State of Chihuahua, well protected by loyal followers and a secure knowledge of the rugged countryside.[19] By mid-February 1916, Villa was reported to be attacking American-owned mines and ranches in his native state.[20] Secretary Lansing requested that Carranza furnish sufficient forces to protect United States citizens and their interest.[21] He was assured that the garrisons were adequate.[22]

By March 1, 1916, reports began to accumulate that Villa and his band sought to cross the United States' border and surrender, and that Villa would then proceed to Washington

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[16]Ibid., p. 107; New York Times, January 13, 1916, expressed the same sentiment in an editorial, p. 10.

[17]New York Times, January 13, 1916, p. 1.

[18]Telegram, Special Agent Silliman to the Secretary of State, January 19, 1916, Foreign Relations 1916, p. 465; and Extract, Consul Letcher to the Secretary of State, February 9, 1916, Foreign Relations 1916, p. 468.

[19]Ibid.

[20]The Independent, February 21, 1916, p. 257.

[21]Telegram, Secretary of State to Special Agent Silliman, February 16, 1916, Foreign Relations 1916, p. 469.

[22]Telegram, Special Agent Silliman to Secretary of State, undated; received March 5, 1916, Foreign Relations 1916, p. 478.

to confer with President Wilson.[23] It was certain however that Villa was moving toward the border, and his small army was increasing. The Carranza government, now put to the crucial test, did not arrest him claiming they had insufficient troops in the area.[24]

On March 9, 1916, Villa crossed the border at Columbus, New Mexico.[25] The force estimated between 500 and 700 Mexicans launched a double thrusted attack at 4:00 a.m. against the United States Army camp on the south side of Columbus, New Mexico. The first indication of an impending engagement to the defenders was the sound of the shot that killed the guard on the west edge of camp.[26]

The Officer of the Day, Captain James P. Castleman, immediately called out the guard. The troopers, although outnumbered (330 troopers compared to 500 to 700 Villistas) and handicapped by weapons stored under lock and key, rallied and soon broke the Mexican attack. The Mexicans retreated northward into the town of Columbus, where they looted stores and

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[23]Telegram, Collector Cobb to Secretary of State, March 3, 1916, Foreign Relations 1916, p. 478.

[24]Series of Telgrams, Collector Cobb to Secretary of State, March 6, 1916 to March 8, 1916, Foreign Relations 1916, p. 479.

[25]Telegram, Collector Cobb to Secretary of State, March 9, 1916, Foreign Relations 1916, p. 480.

[26]"Funston Report," p. 22.

set fire to the principal buildings and depot.[27] This act accomplished, the Villistas moved west of the city, regrouping about three-quarters of a mile from the town's edge. There, at 6:10 a.m., Villa, waiting on the outskirts of Columbus with forty men and the horses, reformed his men and rode southward. A pursuit by twenty-nine men of the 13th Cavalry, led by Major Frank Tompkins, followed the Mexicans as they scurried for the border. Tompkins pursued them for an additional fifteen miles, carefully avoiding the main force and engaging the enemy's stragglers when he caught them. He broke off the chase when he ran short of ammunition and returned to Columbus, New Mexico.[28]

The surprise raid on Columbus, New Mexico, was costly for Villa. He sustained sixty-seven casualties, as opposed to American losses of eight dead soldiers, eight dead civilians, seven wounded troopers, and three wounded towns-

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[27] Ibid., pp. 22-23; and a complete although biased account is in Tompkins, Chasing Villa, Chapter VIII.

[28] Ibid., pp. 55-57. "Funston Report," p. 23; and Alberto Salinas Carranza, "La Expedicion Punitiva," trans, by J. M. Gillespie (unpublished manuscript 1938), pp. 54-61. Carranza launches an attack at Tompkins in his version of the pursuit, stating that if Tompkins had pursued as rapidly as he relates, then surely Villa would have cut him off with his rear guard, especially after Tompkins dismounted to better attack Villa's rear guard. Carranza feels Tompkins used up his ammunition, keeping his distance from Villa's superior force, and then returned to Columbus. Eighteen years later, September 11, 1934, Tompkins received the Distinguished Service Cross for his action at Columbus, New Mexico.

folk.[29] He had achieved his mission. Villa's objective, confirmed by a portion of his private papers found on the battlefield, had been, ever since January 6, 1916, " . . . to precipitate an international conflict by one blow at the crack of dawn and then to flee--nothing more."[30] It was " . . . one of those acts of audacity so frequent in the turbulent life of Francisco Villa, /an/ . . . audacious, decided, impulsive and revengeful man who did not know how to lose."[31]

The American reaction to the raid was a cry for revenge. On March 9 and March 10, 1916, Funston urgently recommended the hot pursuit of Villa to the War Department in order to prevent further raiding and put an end to Villa's " . . . policy of merciless killing of Americans in Mexico."[32] Funston, certain of the inability of Carranza to capture Villa, cited examples of the past " . . . apathy and gross inefficiency of Mexican Government troops . . ." to contain or even press Villa.[33]

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[29]"Funston Report," p. 23; and Carranza, "La Expedicion Punitiva," pp. 50-51. Funston states in his Annual Report that up to 190 Villistas may have been killed; Carranza takes exception to this primarily because of his strong feelings about Tompkins, who claimed to kill 75 to 100 during the chase. The value of sixty-seven dead is based upon the body count.

[30]"Funston Report," p. 23, and the quote from Carranza, "La Expedicion Punitiva," p. 49.

[31]Ibid., p. 63.

[32]"Funston Report," p. 24.

[33]Ibid., p. 25.

The American press, long weary of Mexican non-action, gave the Columbus raid undue importance " . . . thus firing the entire public . . . with a spirit of war and revenge."[34]

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[34]Carranza, "La Expedicion Punitiva," pp. 65-66. The Independent, March 20, 1916, p. 404, ran an editorial entitled "We Can No Longer Wait." It traced relations back to Vera Cruz and then called for invasion as " . . . our present duty . . . peace and good order must be established in Northern Mexico."

CHAPTER V

THE EXPEDITION ORIGINATES

Pancho Villa's attack on Columbus, New Mexico, convinced the authorities of the United States that the time for diplomacy alone had passed: punitive action was needed. On March 10, 1916, General Henry P. McCain forwarded President Wilson's reply to Funston's request to " . . . relentlessly pursue and . . . scatter . . ." Villa's forces.[1] The Commander of the Southern Department received the following instructions.

> President has directed that an armed force be sent into Mexico with the sole object of capturing Villa and preventing any further raids by his band, and with scrupulous regard to sovereignty of Mexico. Secretary of War directs you to telegraph exactly what you need in order to carry out foregoing general instructions, but you will not take any overt steps until receipt definite orders from War Department.[2]

The field command of the expedition fell to Brigadier General John J. Pershing. His selection, March 10, 1916, by President Wilson and Secretary of War Baker, was based solely upon the recommendations of General Hugh L. Scott, Chief of

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[1]Telegram, General Funston to Adjutant General, March 10, 1916; and Telegram, The Adjutant General to General Funston, March 10, 1916, Foreign Relations 1916, p. 483.

[2]Ibid.

Staff, and Major General Tasker H. Bliss. Pershing, stationed at Fort Bliss, Texas, was one of the few officers in the Army who possessed extensive field command experience. He had served in the Indian campaigns in Arizona and the Dakotas as well as the campaigns against the Moros in the Philippines. In recognition of his command ability, President Theodore Roosevelt had promoted him in 1906, over 862 more senior officers, directly from Captain to Brigadier General.[3]

The basic plan of the expedition had been conceived by General Funston. On March 10, 1916, the Commander of the Southern Department proposed a southern pursuit by two columns of cavalry, one originating at Columbus, and the other from Hachita, New Mexico. The force, of four regiments of cavalry, one battery of field artillery, assorted support troops, and one aeroplane squadron, would merge sixty miles south of Columbus at Ascencion, Mexico. In order to assure the safe return of the penetrating force, if the Mexican population rose in mass, Funston, recommended a reinforcement brigade of cavalry as well as infantry to protect the lines of communication and supply.[4]

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[3]Richard O'Connor, Black Jack Pershing (Garden City: Doubleday and Company, Inc., 1961), p. 85, 117; and Robert S. Thomas and Inez V. Allen, "The Mexican Punitive Expedition Under Brigadier General John J. Pershing, United States Army 1916-1917 Chapters I thru V." (unpublished monograph, War Histories Division Office of the Chief of Military History, Department of the Army, Washington, D.C., 1954), p. II-4, hereafter cited as "Monograph."

[4]"Funston Report," pp. 25-26.

The proposed supply routes were to be initially supported by truck and pack train from advanced supply depots at Columbus and Hachita, New Mexico. They would eventually branch southward from El Paso, Texas. When the troops reached Casas Grandes, Mexico, supplies could be shipped via the hoped-for primary mode of transportation: the Northwestern Railroad. In order to secure the border, troops from Douglas, Arizona were to be shifted to El Paso, Texas.[5]

On March 11, 1916, the plan was approved, except for any pre-planned use of the Mexican railroad. The latter was viewing as unadvisable due to the railroad's availability being contingent upon existing conditions and the attitude of the de facto government. Funston was cautioned to instruct his subordinates that the occupation of any Mexican city or town was forbidden.[6] Further, his orders directed that

> . . . the work of these troops will be regarded as finished as soon as Villa's band or bands are known to be broken up . . . . /and the expedition/ will be withdrawn to American territory as soon as the de facto government is able to relieve them . . .[7]

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[5]Ibid.

[6]Inclosure, McCain to Commanding General Southern Department, March 11, 1916, in U.S., Records of the Adjutant General's Office, Record Group No. 94, "General Pershing's Report of the Punitive Expedition to June 30, 1916," AGO 2480591, Box 141 National Archives, Washington, D.C., p. 3, hereafter cited as "Pershing Report." (Photocopy of typewritten report.)

[7]Inclosure, McCain to Commanding General Southern Department, March 10, 1916, in "Pershing Report," p. 3.

In addition to other directives, Funston, was instructed " . . . to make all possible use of aeroplanes at San Antonio for observation."[8]

The arrival of Special Orders 61, Southern Department, March 12, 1916, designating the First Aero Squadron a part of the expedition, were completely unexpected. They arrived in the midst of an inspection by the Inspector General. However, the aviators and their technicians were swift to deploy, leaving San Antonio, Texas, March 13, 1916, in a truck automobile train with the aircraft crated.[9] All the aircraft were taken, as it was anticipated 50 percent would be unserviceable under constant use. By March 16, 1916, the squadron commander, Captain Foulois, and Captain Dodd conducted the first flight from Columbus, in Airplane 44.[10]

The deployed unit to Columbus consisted of twelve officers; Captains Foulois and Townsend F. Dodd; Lieutenants Carleton G. Chapman, Joseph E. Carberry, Herbert A. Dargue, Thomas S. Bowen,

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[8]Inclosure, McCain to Commanding General Southern Department, March 10, 1916, in "Pershing Report," p. 3.

[9]Benjamin D. Foulois, "Report of Operations of the First Aero Squadron, Signal Corps, with Punitive Expedition, U.S.A., for Period March 15 to August 15, 1916" United States Air Force Archives, 168.650 11-7A, August 28, 1916, p. 1, hereafter cited as "First Aero Report." (Typewritten.) and Edgar S. Gorrell, "Why Riding Boots Sometimes Irritate an Aviator's Feet," U.S. Air Services, October 1932, p. 24., hereafter cited as Gorrell.

[10]"First Aero Report," p. 1, and Foulois Autobiography pp. 125-126.

Robert H. Willis, W. G. Kilner, Edgar S. Gorrell, Arthur R. Christie, Ira A. Rader, and S. S. Warren, a medical corps officer; 82 enlisted men; a civilian mechanic, Jacob Bailey; and 3 Hospital Corps men.[11]

The operational status of the air unit was far from satisfactory. The eight JN-2's considered inadequate when new, were dangerous after spending the summer, fall, and winter in the open. The unit possessed no machine guns, bombs, or other armament, and only a few of the eight pilots carried side arms or 22 caliber rifles for self protection. Their greatest asset was their youthful eagerness and complete belief in the value of an air service to the army.[12]

Pershing, meanwhile, went about the task of organizing his command of 10,000 men. He had been notified of his selection, March 11, 1916, by Funston, who left him " . . . free to make such assignments of the troops under /his/ command as /he thought/ . . . best in order to accomplish the purpose in hand."[13] The task force was to consist of the Seventh, Tenth (Colored), Eleventh, and Thirteenth Cavalry Regiments; the Sixth and Sixteenth Infantry Regiments; Batteries B and C, Sixth Field Artillery; First Ambulance, Company Number Seven; Field Hospital,

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[11]"First Aero Report," p. 1.

[12]Gorrell, p. 24.

[13]Letter, Department Adjutant to Brigadier General John J. Pershing, March 11, 1916, in "Pershing Report," p. 2.

Number Seven; various Signal Corps detachment; Wagon Companies One and Two; and the First Aero Squadron.[14] As the plans took shape and units were placed, operational difficulties became more apparent. One of the most immediate and obvious of problems was how to maintain the continuity of supply and communication lines.[15]

The expeditions area of operation was the State of Chihuahua, Mexico. About three times the size of New York State, it consisted of four-fifths eastern plateau region and one-fifth western Sierra Madre mountains. The plateau area, a series of plains divided by low barren mountains, gravel ravines, and dry lakes, represented a serious obstacle to military movement. The mountain region rose from a low elevation of 3,000 feet to a high of 10,000 feet, it too was almost inaccessible. The remote canyons offering plentiful water, food, forage and fuel were a favorite haunt of fugitives.[16]

The climate of Chihuahua was as harsh as the topography. The area, cold in winter, hot in summer, was extremely dry, except for a mid-summer rainy season. As a result of the harsh climate, the plateau region boasted little vegetation other than thorns, cactus, mesquite, and yuccas. The little grass that appeared during July and August soon dried up, making

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[14]"Pershing Report," pp. 4-5.

[15]"Funston Report," p. 28.

[16]"Monograph," pp. II-14, 15.

forage for horses scarce.[17]

These topographical and climatic conditions made logistical support difficult even if suitable transportation was available. It was not, and this lack of capability was "the most critical situation which confronted the entire expedition at the outset."[18]

Funston's staff had completed the immediate steps of accumulating supplies, ammunition, and troops at Columbus, New Mexico, and Pershing had developed deployment plans, but, as " . . . practically no motor trucks were available . . ." logistical support did not exist.[19] The fifty-four trucks ordered by the War Department for the expedition were not expected until March 19, 1916, four days after the expedition's scheduled deployment.[20]

Fortunately, the ten trucks possessed by the First Aero Squadron arrived in sufficient time to provide a partial solution to the transportation problem.[21]

The expedition's instructions were to depart no later

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[17] Ibid., p. II-15.

[18] "Foulois Record," p. 6.

[19] "Funston Report," p. 28; and The Outlook, March 29, 1916, p. 732.

[20] Ibid., "Foulois Record," p. 6; and Report of the Quartermaster General, Annual Report 1916, p. 376.

[21] "Foulois Record," p. 6.

than 6:00 a.m., March 15, 1916.[22] However, this was delayed until the arrival of the First Aero Squadron on the morning of March 15, 1916. At noon, March 15, within an hour after the squadron's arrival at Columbus, New Mexico, the southward march began. This expedition marked the first experience that the army had with motor vehicles, and an aviator, Lieutenant Edgar S. Gorrell was in charge of the truck train. Gorrell, later President of the Stuz Motor Car Company of America, had been selected for the duty because he and his ground crew had been first to uncrate their airplane, and he had no other immediate duty. As he travelled toward Mexico, he felt a bit uneasy, knowing that the airplane mechanics serving as guards were totally unfamiliar with the rifles they carried. They had rarely if ever fired them.[23] The young officer's apprehension was further intensified by thoughts of the threats of the Carranza commander at the border gate at Las Polomas, south of Columbus, New Mexico, who had promised to resist American entry. Fortunately, neither the Mexican nor his command were encountered when the eastern column crossed the border.[24]

The western column consisted of the Second and Tenth Cavalry. Its departure point was Hachita, New Mexico. Designated as the Second Provisional Cavalry Brigade, it was commanded

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[22]"Funston Report," p. 28.

[23]Gorrell, p. 25.

[24]"Pershing Report," p. 7.

by Colonel George A. Dodd. A late intelligence report revealed that Villa's band, estimated between 500 and 1000 men, had passed Casas Grandes, Mexico. Pershing, in hopes of cutting off Villa, directed this all cavalry column to by-pass the pre-planned Ascencion rendezvous and to make a forced march toward Casas Grandes. Relishing action, Pershing decided to lead the forward thrust himself, and ordered Dodd to delay departure from the Culbertson Ranch until he arrived. Pershing's decision delayed the planned departure as he was involved in an automobile accident. It was after midnight before the column got under way.[25]

A day later, March 17, 1916, Dodd's flying column arrived at Colonia Dublan, Mexico. They had covered the 125 miles of rough terrain from the Culbertson Ranch in less than twenty hours with only two halts. A temporary advanced base of operations was established a mile north of Colonia Dublan.

The eastern column, commanded by Colonel James Lockett, Eleventh Cavalry, paced itself more slowly, stopping at Las Polamos, Boca Grande, Ascencion and Corralitos, Mexico. It arrived at Colonia Dublan shortly after noon, March 20, 1916, bringing the expedition's strength in Mexico to 192 officers, 4800 troopers, and 4175 horses.[26]

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[25] Ibid., pp. 5-7.

[26] Tompkins, Chasing Villa, p. 77-78, and "Monograph," p. II-18.

Pershing's first task was to locate Villa. This task continued to perplex him the entire campaign. Villa, at home in Chihuahua and six days ahead of his pursuers, was able to evade the American troops at will. (Local reports indicated that Villa was in the vicinity of San Miguel de Babicora, forty-five miles south of the expedition's camp.) In an attempt to prevent Villa from moving into Sonora, and hoping to cut the bandit's trail before he could move into the mountains near Guerrero, Pershing executed his first attack: three separate but parallel cavalry columns.[27]

With the campaign initiated, Pershing ordered the First Aero Squadron to Casas Grandes for immediate service.[28]

The orders to proceed to Casas Grandes, Mexico, were received by Foulois late Sunday afternoon, March 19, 1916. Acknowledging receipt of the order, Foulois asked Pershing to have landing fires set around the field at the destination. A lack of squadron truck transportation existed, so only 50 percent of the enlisted personnel were ordered to move forward. The men who remained at Columbus, New Mexico, were expected to provide technical support for the Quartermaster truck operation. The available squadron trucks had been packed previously. The aircraft were soon fueled and readied. Both the ground and air elements departed Columbus, New Mexico at

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27"Pershing Report," p. 7.

28"First Aero Report," p. 1.

5:10 p.m., March 19, 1916.[29]

The deployment mission, a flight of 110 miles, was not normal. The late departure made a night landing a certainty. The only pilot in the unit who had flown at night was Captain Dodd who had previously logged one night sortie. The aircrews had only a vague idea where Casas Grandes, the intended destination, was. Their maps were inaccurate blueprints that barely portrayed a rough representation of the locale. The aircraft were not equipped with instruments, nor lighted for night operations. Each JN-2 had a different compass system, all of which were commonly unreliable. The aviators, eager to respond to the urgent call, cast their cares to the wind, but at the same time, each " . . . wondered what the country beyond Columbus had in store for him."[30]

The first aircraft to abort was piloted by Lieutenant Kilner. Barely clearing ground, due to the low power of his malfunctioning OX engine, he flew a closed pattern and landed. He wisely chose to remain until the ground crews installed a new OXX engine. He departed Columbus the next morning, flew non-stop to Casas Grandes, and was first aviator to arrive at the intended destination, March 20, 1916.[31]

Foulois, in the lead aircraft Airplane 44, anticipated

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[29]March 19, 1916, Ibid., and Gorrell, p. 25.

[30]Ibid.

[31]Ibid., p. 26., and March 20, 1916, "First Aero Report," p. 1.

the hazards of night flight. Noticing a dust cloud, created by cavalry of unknown origin, and aware of the rapidly decreasing daylight, he decided continued travel was futile. He landed at Ascencion, Mexico, and was followed in by Airplanes 45, 48, and 53.[32]

Willis in Airplane 41, and Gorrell, in Airplane 52, initially experienced little difficulty. Each had "a good propeller," and they flew on, Gorrell trailing Willis. Eventually, they lost sight of the other machines in the sky. Noticing that the ground had grown rough and had a higher elevation they each climbed an additional 1000 feet. Darkness came, but they pressed on. Gorrell soon lost sight of Willis.[33]

Two hours later he saw him again, when Airplane 52 and Airplane 41 almost had a midair collision. Both aviators had seen a lighted area and headed for it, almost meeting one another in the process. The light, however, turned out to be a forest fire in a high-walled canyon. Gorrell, in Airplane 52, looking for a suitable landing area, applied power and climbed out of the canyon area. He saw only four things, mountains below, a full moon, the north star, and darkness. He was completely lost.[34]

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[32]Gorrell, p. 26.

[33]Ibid., and New York Times, March 28, 1916, p. 3.

[34]Gorrell, p. 26. The New York Times article stated that Willis landed at the location of the fire.

Willis' luck was not any better. He was forced to make a night landing near Pearson, Mexico. As he rounded out, the aircraft hit a low knoll, and was destroyed. Willis, somehow uninjured, climbed out of the smashed cockpit, consulted his blueprint map, and headed in the direction in which he hoped Casas Grandes lay. He walked all night and hid in the underbrush the next day. Resuming his journey the following evening, he narrowly missed being captured by three armed Mexicans whose fore attracted him. He succeeded in evading them by hiding in the mesquite, emerging only after they had departed. Willis finally reached the base camp at Colonia Dublan, 2:00 a.m., March 21, 1916.[35] Salvage parties were dispatched to the crash scene the next day, but due to hostile fire they withdrew. A second attempt, March 23, 1916, was successful.[36]

Gorrell had even less fortune. Assuming he had flown too far south, unable to see his compass for direction, and totally lost, he turned toward the north star in hopes of trying " . . . to reach my comrades and obtain assistance." Flying between the mountain peaks, the only sign of civilization he noticed were a few small lighted shacks. He continued on. In a short time his oil supply was consumed. He contemplated shutting the engine down before it seized,

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[35]"Government's Aeros Not Suitable for Mexico," Aerial Age Weekly, April 3, 1916, p. 86; and New York Times, March 25, 1916, pp. 1-2.

[36]March 22, 1916, March 23, 1916, "First Aero Report," pp. 2-3.

but a lack of fuel soon stopped his "good propeller."[37]

Stair-stepping the aircraft down, he landed in a field filled with bunch grass. Nearby were a few lighted adobe huts. Some dogs sensed his presence in the blackness and began barking. Gorrell, well briefed on the good possibility of unfriendly Mexicans, rapidly gathered his gear and departed the aircraft.[38]

The young aviator spent the next several days surviving, Dressed in blue overalls and leather flying coat over a khaki service uniform with a football like flying helmet on his head, he set out across the desert. His equipment, a pistol, canteen of water, emergency rations, and the blueprint map, was meager at best. Evading a herd of horses and cattle, which chased him into a stream of water, Gorrell pressed forward until 4:00 a.m., when he paused for a rest. Two hours later, he awoke, to find himself on the crest of a hill in the middle of a desert.[39]

Hoping to cross either the lines of communication or supply, he set off across the barren soil. By mid-afternoon, with half of his water already consumed, he realized the

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[37]Gorrell, p. 26. The Aerial Age Weekly, April 3, 1916, p. 86, said, Gorrell had a fuel leak, but Gorrell states in his article he never talked to any reporters.

[38]Ibid., pp. 26-27.

[39]Ibid., p. 27.

futility of his journey. He retraced his steps, barely reaching the stream he had easily forded the night before. Unused to the desert conditions, he had fainted twice and experienced a fit of convulsions and vomiting. He drank his fill of water and fell asleep. Upon awakening, he returned to his aircraft and found it intact except for a Mexican name recently written on it in pencil.[40]

Correll decided his only hope of survival was to steal a horse, and ride to safety. In the midst of procuring an animal, he was surprised by a Mexican. This fortunate circumstance probably saved his life. The native knew where the Americans were, and Correll, in no position to argue, succeeded in purchasing the guide's services for four silver dollars. The return trip, about thirty miles, to Ascencion, Mexico, was uneventful. Correll rode behind; his service pistol was constantly cocked, as he feared treachery. The Mexican, already nervous, half expecting to see Villistas at any moment, became steadily more frightened as they approached Ascencion. By the time the duo reached the town, a crowd of curious people had gathered. Under this exposure the Mexican desired little of the young American's company. When a cloud

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[40] Ibid., pp. 27-28. The Aerial Age Weekly, April 3, 1916, p. 86, fabricated a story that Correll crossed the desert, tacked a note, giving his location, on a stick near a wagon trail, and then returned to guard his aircraft until rescued. The correct account appeared in the New York Times, March 28, 1916, p. 3.

of dust of an approaching troop appeared, he collected his pay and rapidly departed, leaving Gorrell, horse, and all. Gorrell's ragged appearance caused the American troop to first suspect him of being a Mexican bandit, but fortunately the detachment of the Sixth Infantry did not fire, and he was saved.[41]

The following morning, March 22, 1916, Gorrell secured a Ford automobile, eight gallons of gasoline, one quart of oil, and a new guide. Returning to his aircraft, with the guide and a chauffeur, he filled the radiator with stream water, refueled and serviced the engine, and cranked his "good propeller." Before he was ready to depart a strong wind came up, and rain began to fall. He had never flown in a rainstorm, nor had he flown without his goggles. These he had lost the previous day. Instructing the guide and chauffeur to hang on the wings, he applied full power and " . . . by luck . . . " managed to take off without nosing over in the bunch grass.[42]

He flew to Ojo Frederico, a point along the supply route, where he landed. Later in the day he flagged down a truck train, refueled, and attempted to fly to Casas Grandes. After being airborne for only five minutes, a huge part of the airplane's rear spar departed the left wing, and under the added strain the linen fabric began to rip. He executed an immediate return to Ojo Frederico, where after a night's stay, he obtained

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[41] Gorrell, pp. 28-29.

[42] Ibid., pp. 29-30.

a ride on another truck convoy and returned to his command, March 23, 1916.[43]

On March 25, 1916, Gorrell and his mechanics returned to Ojo Frederico. They made emergency repairs and on March 26, 1916, Airplane 52 joined the force.[44]

Equally disastrous was the trip of Lieutenant Bowen. Flying in Airplane 48, he made a successful landing at Ascencion, Mexico, behind Foulois, March 19, 1916. Departing the following day for Colonia Dublan, he encountered enroute fuel problems and landed at Casas Grandes. Refueled, he resumed his journey that afternoon. Once in the Colonia Dublan area, he flew into "puffy air" and whirlwinds during his landing approach. At only sixty-five feet absolute altitude the aircraft was caught by a " . . . sudden puff of wind /it/ 'side-slipped,' crashing into the ground."[45] The entire air frame burned leaving only the engine intact. Bowen, who was knocked unconscious, was rescued and luckily suffered only a broken nose and minor injuries.[46]

The First Aero Squadron had finally joined the punitive expedition in the field. Their aircraft, definitely underpowered, had barely managed to traverse the plateau area of

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[43]Ibid. [44]Ibid.

[45]"Government's Aeros Not Suitable for Mexico," Aerial Age Weekly, April 3, 1916, p. 86.

[46]March 20, 1916, First Aero Report, p. 2.

Chihuahua. The aviators, although eager to serve, were capable of flying only when navigation over the area was easy. Fortunately, however, to ease some of the unit's deficiencies, " . . . the prairie . . . offered numerous good places to land."[47] The short deployment from Columbus to Colonia Dublan had resulted in the loss of two aircraft. Only six JN-2's remained and each according to Henry Woodhouse, " . . . was worth one thousand men in the Mexican campaign."[48]

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[47]"Government's Aeros Not Suitable For Mexico," Aerial Age Weekly, April 3, 1916, p. 86. The statement is attributed to Lieutenant Bowen.

[48]Henry Woodhouse, "No Aeroplanes for Mexican Campaign!" Flying, April 1916, p. 101. Mr. Woodhouse's estimate of a JN-2's value was probably high considering the low capability of the machine. However, British General Lord Kitchener, speaking of European war airplanes stated, "an aviator is worth an army corps." See U.S., Congress, House of Representatives, Representative William S. Bennet speaking on Aeroplanes, June 9, 1916, 64th Cong., 1st sess., Appendix, Congressional Record, Vol. LIII, p. 1140.

CHAPTER VI

THE SEARCH CONTINUES

On March 20, 1916, the pace of pursuit increased. Pershing, foreseeing the need for additional units organized four more detachments. Each one was held in readiness against any circumstance that might arise. These new thrusts, commanded by Lieutenant Colonel Henry T. Allen, and Majors Elmer Lindsley, Frank Tompkins and Robert L. Howze, were dispatched between March 20 and 29, 1916. As all units would eventually converge in the Namiquipa area, Pershing relocated his advanced field headquarters near that Mexican village.[1]

The Second Squadron and Troop L, Thirteenth Cavalry, were the first detachment to depart. Lindsley, and his command of eleven officers and seventy-five troopers, were ordered to guard trails west of Chuhuichupa, in the event that Villa turned in that direction. However, Villa's forces appeared to be headed due south, and Lindsley's orders were altered March 24, 1916. He was redirected toward San Jose de Babicora.[2]

On March 21, 1916, Tompkins left Colonia Dublan at the head of eleven officers and 160 troopers of Troops K and M,

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[1]"Pershing Report," pp. 11-12.

[2]Ibid., p. 11.

and Machine Gun Platoon, Thirteenth Cavalry, and Troops I and K, Tenth Cavalry. His mission: to proceed up the Santa Maria River, thence to Namiquipa where he was to " . . . be on hand should his services be needed later in the pursuit . . . " of Villa.[3] This he accomplished, arriving at Namiquipa, March 29, 1916.[4]

Next, on March 24, 1916, Howze led a composite command of 10 officers and 225 troopers southward along the lines of communication between Colonia Dublan and Namiquipa. He also arrived at Namiquipa March 29, 1916.[5]

Three days later, March 27, 1916, Allen left the camp at Colonia Dublan. Moving southward toward Namiquipa, this composite unit of 10 officers and 282 troopers was as unsuccessful as all the other columns and detachments in locating Pancho Villa.[6]

The cavalry columns of Brown, Erwin, and Evans also met an equal amount of failure. Brown, his forces bolstered by those of Evans, who had joined him March 23, 1916, received confirmed reports, March 25, 1916, that Villa had been defeated by the Carranzistas of Colonel Apolonio Cano at Namiquipa. The Villistas were said to be hiding in the vicinity of either

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[3]Ibid., and for a full account, Tompkins, Chasing Villa, pp. 110-118.

[4]"Pershing Report," p. 12.

[5]Ibid. [6]Ibid.

El Oso or Santa Clara.[7]

Brown decided his best alternative was to join forces with Cano, who promised that his Mexican scouts would find the bandits. Brown dispatched the plan to Pershing, the division commander, and Colonel George A. Dodd, the brigade commander. Brown's optimism for possible success was shortlived, however. Cano, possibly preferring Villa's escape more than his capture through cooperative action with the Americans, never intended nor attempted to flush Villa. Brown, in disgust, disbanded the plan, March 27, 1916, and moved his column to La Quemada for the remainder of March, 1916.[8]

On March 21, 1916, Colonel Dodd was instructed by Pershing to join Erwin's detachment, and from that vantage point to assume command of field operations. He was directed to establish communications with the other columns and to attempt to secure the cooperation of the Mexican forces. Dodd and his forces arrived at El Valle, March 22, 1916. A conference was held with Colonel Salas, Commanding General of the El Valle Mexican forces. Salas confirmed that Villa had defeated him at Namiquipa, March 19, 1916. Dodd, too, headed for Namiquipa, on the assumption he could catch Villa. On March 24, Dodd, apprised of the battle between Cano's Federales and the

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[7]Tompkins, Chasing Villa, pp. 91-92; and Carranza, "La Expedicion Punitiva," pp. 90-91.

[8]Tompkins, Chasing Villa, p. 92; and "Pershing Report," pp. 8-9.

Villistas, changed his destination to Santa Ana. He hoped to cross Villa's path and cut him off.[9]

The swiftly-shifting movement of the campaign, driven more by rumor than valid intelligence, created a serious problem of command control for Pershing. The strategy of the search had more shadow than light. Pershing's troops, unfamiliar with the territory, riding mounts unused to the rigors of the Mexican plateau lands, and uncertain of the assistance or attitude of all natives, stumbled after every wisp of Pancho's trail. To General Pershing fell the task of controlling and directing the chase in some semblance of order.[10]

The General recognized the necessity for a flexible, responsive, and timely field command element. He mounted his command post in an open touring automobile and chased between his forces in the field.[11] Whenever possible, telegraph and radio communications were established. Telegraph was very uncertain due to the constant sabotaging of the lines. The enemy insurgents snapped telegraph poles, and often cut and carried off 100 yard line sections.[12] Radio too, was far from satisfactory. The plateau area had extensive iron ore deposits. Their

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[9]Tompkins, Chasing Villa, p. 92; and "Pershing Report," pp. 8-9.

[10]Toulmin, With Pershing in Mexico, pp. 47-51.

[11]Ibid.

[12]Telegram, Pershing to Funston, April 18, 1916, Foreign Relations 1916, pp. 526-527.

effect on the weak and inefficient radio systems was reflected as a constant hi-level of static that made radio communication difficult if not impossible.[13]

Pershing's remaining alternative, in order to maintain the control of his forces and campaign, was an aerial courier service. The inherently weak First Aero Squadron was often his only means of direct, rapid communication with his subordinate field commanders.[14]

As the fingers of the American expeditionary forces spread sporadically southward, the aviators of the First Aero Squadron vainly attempted to fulfill the dual roles of couriers and scouts. Pershing needed them, and from the day of their arrival to their final departure, they were utilized.[15]

At noon, March 20, 1916, shortly after arriving in the field, the first combat mission went aloft. Captain Foulois, flying in his normal position of observer, and Captain Dodd, as pilot, departed Casas Grandes in Airplane 44. Their instructions were to locate Brown's column, thought at the time to be located in the Lake Babicora area. The aviators proceeded southward about twenty-five miles from the base. They soon encountered 10,000 foot mountains, whirlwinds, and treacherous vertical currents of air. The low powered JN2 was incapable of climbing high enough to evade the air currents over the foothills,

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[13]Statement by Newton D. Baker, April 8, 1916, as cited by Aerial Age Weekly, April 17, 1916, p. 141.

[14]Ibid. [15]"Pershing Report," p. 43.

much less traverse the mountains. Therefore, the disillusioned aviators were forced to return to the station without completing their mission.[16]

The following day, March 21, 1916, a second mission was dispatched. Once again Foulois and Dodd were airborne and headed toward the Galena Valley where the Brigade Commander, Colonel Dodd, and Erwin's forces were operating. The column was located, dispatches were delivered, and a request by Erwin for supplies was delivered back to Pershing's headquarters. As a result, six trucks of supplies were dispatched, arriving late that same evening.[17]

On March 22, 1916, the squadron received two missions: communicate with Evans' troops moving southward along the Northwestern Railroad, and recontact Dodd. Airplane 42, crewed by Lieutenants Kilner and Bader, and Airplane 45, piloted by Carberry, flew into the Galena Valley. The crews reported to Dodd, obtained his reports and returned to Colonia Dublan.[18]

Captain Dodd and Lieutenant Christie in Airplane 44 and Lieutenant Chapman in Airplane 53 had less fortune. Flying south into the Sierra Madres they attempted to find Evans' troops along the railroad. Again, the low powered aircraft failed to

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[17]Samuel F. Dallam, "The Punitive Expedition of 1916," The Cavalry Journal, July 1927, p. 387; and March 21, 1916, "First Aero Report," p. 2.

[18]March 22, 1916, "First Aero Report," p. 2.

overcome the whirlwinds and stiff currents of the mountainous area. The aviators flew as far as the northern end of the Cumbre Pass tunnel, the air currents driving them at times " . . . within twenty feet of the tree tops," but they were unable to cross the mountains and were compelled to abort their mission.[19]

Worried by the failures encountered, Foulois submitted a request to Pershing, March 22, 1916, for am immediate remedy: new aircraft. The memorandum for Pershing stated in part:

> 1. In view of the fact that the present aeroplane equipment of the First Aero Squadron is not capable of meeting the present military service conditions, it is urgently requested that the following number of aircraft . . . be purchased /with/ . . . immediate delivery by express . . . .[20]
>
> 2. Aeroplanes
> (a) Two (2) Martin aeroplanes, Model S, with army standard landing gear, Hall-Scott 125 h. p. 6 cyl. motors.
> (b) Two (2) Curtiss aeroplanes, Model R2, Curtiss 160 h. p. steel cylinder motors.
> (c) Two Sturtevant aeroplanes, 140 h.p. Sturtevant motors.
> (d) Two (2) Thomas aeroplanes, 135 h.p. Thomas motors.
> (e) Two (2) Sloane aeroplanes, 125 h.p. Hall-Scott 6 cyl. motors.[21]

The following day, March 23, 1916, three separate sorties

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[19]March 22, 1916, "First Aero Report," p. 2.

[20]Memo For the Commanding General Punitive Expedition, U. S. Army. At Casas Grandes, Mexico, March 22, 1916, in "First Aero Report," p. 2.

[21]Ibid.

were dispatched with communications for Colonel Dodd from General Pershing. The aircraft, Airplanes 44, 45, and 53, flying in extremely turbulent air, reached the Brigade Headquarters at El Valle. Their destination was confirmed by a soldier waving a blanket in recognition. The aviators landed with great difficulty in the strong winds. As they parked their aircraft, one was nearly overturned by the wind which pushed it twenty to thirty feet. The flyers, forewarned, secured their machines with lariets and tent poles. Because of the winds, sleet, and snow, they were forced to remain two days. During this period, the ill equipped aviators had to sleep in the open without blankets. On March 25, 1916, after two to four hours of handcranking their "cold-soaked" engines, the aviators were once again airborne for home.[22]

Colonel Dodd, the Brigade Commander, had been pursuing Villa's movements since joining the column. On March 26, 1916, with no indications of Villa at Santa Ana, Dodd in reaction to a report received from Brown, moved his column toward Bachiniva. The march was conducted under freezing conditions. Enroute, " . . . men and animals had icicles hanging from their whiskers, and canteens were frozen solid."[23] The column reached Bachiniva early March 28, 1916.[24]

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[22]New York Times, March 28, 1916, p. 1; and March 23, 1916, "First Aero Report," p. 3.

[23]Dallam, "The Punitive Expedition of 1916," p. 388.

[24]Tompkins, Chasing Villa, p. 82.

On the same day, Lieutenant Chapman achieved two firsts. Dispatched on a 110 mile round robin from El Valle, he crossed the Continental Divide for the first time. His reconnaissance sortie was also a success. As he penetrated the mountains, he spotted a group of suspected Villistas. He immediately returned to El Valle, and delivered his report.[25] Dodd's command at Bachiniva was the closest column to the insurgents' position. The valuable information was rapidly delivered to Dodd by Lieutenant Dargue, in Airplane 43.[26]

Colonel Dodd received the report. It confirmed rumors of 500 to 600 Villistas in the Guerrero area. He alerted his column for battle, and began a forced march through the mountains.[27]

By 8:00 a.m., March 29, 1916, Dodd reached the outskirts of Guerrero. The town, located in the lower plains of a valley, was surrounded by high bluffs. The eastern approach to the town was blocked by nearly impassable arroyos, but the western access through the foothills was less difficult. To prevent the escape of the enemy, Dodd placed the Second Squadron across the river west of town. With his main body of troops hidden by the eastern bluffs, Dodd ordered the attack. In the short battle

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[25]March 28, 1916, "First Aero Report," p. 5; and "More Aeros and Larger Engines for the Mexican Campaign," Aerial Age Weekly, April 10, 1916, p. 116.

[26]March 28, 1916, "First Aero Report," p. 5; and Carranza, "La Expedicion Punitiva," p. 86.

[27]"Pershing Report," pp. 13-14.

that followed thirty Mexicans were killed, one of whom was suspected to be General Elicio Hernandez, two machine guns were captured, as well as a number of horses, saddles, and assorted arms. In addition, several Carranzista prisoners, scheduled for execution, were saved. Dodd's force suffered only four casualties, all wounded.[28]

Dodd had however missed catching Villa. He had followed a route into Guerrero preferred by his civilian guide, Mr. Baker, foreman of the Bavicora Ranch, rather than that recommended by his advance guard. As Dodd marched toward Guerrero on the recommended road, Pancho Villa followed the other route out of town.[29]

The expedition not knowing Villa's true location continued to search, and the First Aero Squadron continued to try to provide it aerial support. Between March 26 and April 4, 1916, the unit flew seventy-nine mail and dispatch sorties.[30] These flights, between Columbus, New Mexico and points within Mexico, were a constant battle for survival. The aviators, exposed in

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[28]Colonel Dodd's Report on the Fight: Guerrero, Chihuahua, Mexico, 29 March 1916, in "Pershing Report," pp. 14-16.

[29]Dallam, "The Punitive Expedition of 1916," pp. 390-391. Villa had previously been wounded while observing a battle with Carranzista troops. As a result of this and increased Carranzista activity, he hid in the mountains in a cave until 6 July 1916 when he rejoined his followers at San Juan Bautista. See Carranza "La Expedicion Punitiva," pp. 85-86, and pp. 289-296.

[30]March 26, 1916 to April 5, 1916, "First Aero Report," p. 5.

open cockpits to the extremes of cold, thin air, unstable air currents, and an occasional bullet, provided a sketchy, but valuable reconnaissance and courier service for the expedition.[31] The frequency of their flights is borne testimony by the recurrence of the dateline: "Field Headquarters, United States Army in Mexico . . . (by aeroplane to Columbus, New Mexico)."[32] However, the inadequacies of the small unit, so highlighted by its Press notices, were undergoing serious consideration.

The limitations of the Aviation Section quite evident to its members, were finally being exposed to the general public and Congress.

Concurrent with the journalistic coverage of the First Aero Squadron, the organizational problems of the Air Service were also being reviewed in the court martial of Lieutenant Colonel Lewis E. Goodier, Judge Advocate of the Western Department. Goodier, father of Captain Lewis E. Goodier, Jr., Aviation Section, had become incensed by the poor operating procedures that directly resulted in his son's injuries. Therefore, he had launched an unofficial investigation of the aviation school. In order to gather evidence, he had allied himself with his son's friends, Captain Dodd and Lieutenant Taliaferro. The trio's investigation had resulted in charges

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[31]"Government's Aeros Not Suitable For Mexico," Aerial Age Weekly, April 3, 1916, pp. 86, 95.

[32]Issues of New York Times for late March and early April, 1916.

calling for the removal of Captain Cowan as the Aviation School head. The charges of illegally receiving flight pay were filed by Goodier against Cowan and Captain W. L. Patterson. An investigation of these charges by the Judge Advocate General revealed that the complaint could not be sustained. In addition, Goodier was courtmartialed for soliciting evidence. The resultant proceedings aired the organizational problems, as well as capabilities, of the Air Service to the Congress, the President, and the nation. As a direct result, Goodier, on April 17, 1916, received a reprimand from President Wilson; Colonel Reber and Captain Cowan were subsequently removed from aviation service; and Secretary of War Baker began considering a complete reorganization of the air service.[33]

The Mexican Punitive Expedition further advertised the Air Services lack of capability. On March 11, 1916, in reaction to the Columbus raid, the Aero Club of American had offered to provide men and aircraft for active service in Mexico.[34] Their offer was immediately rebuffed by the Secretary of War, Baker, who though appreciating their patriotism, was certain the expedition had " . . . all the planes neces-

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[33]"Goodier Court Martial," (no page); "The News of the Week," Aerial Age Weekly, April 10, 1916, p. 111; "Flying Corps to be Separated from the Signal Corps?" Aerial Age Weekly, April 24, 1916, p. 173; and Study 98, pp. 153-154.

[34]Telegram, Aero Club of America to Newton D. Baker, in "First Aero Squadron to Mexico," Aerial Age Weekly, March 20, 1916, p. 24.

sary."[35] Several days later when the First Aero Squadron was ordered to Mexico, Reber, still the Chief of the Aviation Section, under the direction of Chief of Staff Scott, assured all concerned that the " . . . short time . . ." expedition had " . . . all the aeroplanes necessary."[36] The Aerial Age Weekly expressed a deep concern over the nation's capability to wage war. Commenting that "comment is unnecessary," it compared four headlines:

> "French Airman Brings Down His Eighth German Aeroplane," "Entire U. S. Aero Squadron Consisting of Eight Aeroplanes to Go to Mexico," "12,000 U. S. Troops Ready for Mexican Expedition," and "Carranza Orders 25,000 Troops to the Border."[37]

The Aero Club of America and its President, Alan R. Hawley, on March 14, 1916, demanded "an immediate appropriation of one million dollars . . ." for aircraft and equipment.[38] In an air-preparedness campaign that had begun previous to the expedition, the air enthusiasts noted that European air forces possessed

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[35]Telegram, Newton D. Baker to Aero Club of America, in "U.S. Forces Utterly Unprepared - and Possibilities Underestimated," Flying, April 1916, p. 101.

[36]Telegram, S. Reber to Aero Club of America, in "A Million Dollars Asked to Save Lives of 10,000 American Soldiers," Aerial Age Weekly, March 27, 1916, p. 54.

[37]"The Irony of It," Aerial Age Weekly, March 20, 1916, p. 9.

[38]Telegram, Aero Club of America to President Wilson, Secretary Baker, Representative John J. Fitzgerald, Representative James Hay, Senator George E. Chamberlain, and other officials, March 14, 1916, in "Aero Club Asks $1,000,000 for Aeronautical Equipment," Flying, April 1916, p. 101.

three aircraft for every aviator and the United States aerial force could barely furnish one aircraft per " . . . aviator now at the Mexican border. . . ."[39] Hawley and his associates felt that at least four aero squadrons were the minimum Mexican campaign requirement. They volunteered to furnish fifty civilian aviators especially trained for the border conditions by Carranza's former chief pilot, Bonney. These men and 100 high performance aircraft would in Hawley's words, " . . . round up Villa and his band in a very short time. . . ."[40]

Hawley's campaign was not received favorably by the War Department. The telegram to the President, Secretary of War, and the Congressional leaders proffering an augmentation of the military air arm by civilians created numerous memoranda. Brigadier General Scriven, Chief Signal Officer, rebuffed the patriotic offer by stating that military service could only be furnished by regulars, militia, or volunteers who "may be called out by the President" under the existing laws. This statement was not totally correct as the First Aero Squadron had a civilian mechanic, the expedition had hired civilian drivers, and Funston, on March 23, 1916, in recognition of the pilot shortage had, at the time, suggested the immediate employment of civilian aviators.[41]

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[39] Ibid. [40] Ibid.

[41] Wesley Phillips Newton, "Aviation in the Relations of the United States and Latin America 1916-1929" (unpublished Ph.D. dissertation, University of Alabama, 1964), p. 45.

The uncomfortable pressures, brought by the Aero Club of America on the War Department continued. On March 23, 1916, Hawley wired President Wilson that "every aeroplane is worth 1000 soldiers . . ." and therefore "to protect the lives of thousands . . ." the Club offered two high powered machines as well as nineteen trained aviators.[42] In addition, the Club had arranged for the training of militia officers in thirteen states all " . . . available for service in a short time, forming a valuable reserve."[43]

Secretary of War Baker acknowledged the deficiencies of the Aviation Section and the need for aerial reserves to the Club on March 23, 1916. He stated his appreciation of the Club's intense interest in improving the army effectiveness; however, with due consideration by both himself and General Scriven, the proffered aircraft were refused. Baker further stated that the creating of the Air Service had been ". . . as rapid and effective as the provisions of Congress have permitted."[44]

The hue and cry for an effective aerial service spread across the nations through the newspapers of the United States.

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[42]Telegram, Alan R. Hawley to President Wilson, March 23, 1916, in "Club Offers Two $10,000 Aeroplanes to Government," Flying, April 1916, p. 103.

[43]Ibid.

[44]Telegram, Baker to Hawley, March 23, 1916, in Newton, "Aviation in the Relations of the United States and Latin America 1916-1929," p. 46.

Editorials promoting military flying appeared in New York, Chicago, Savannah, Boston, Philadelphia and other cities. They denounced the "neglect" and "national shame" of aerial readiness. Some editorials openly stated that positive corrective action could be achieved by "new faces in Congress."[45]

Congress was slow to react to changes, especially when it came to appropriating funds for new military toys still considered experimental. They had a continuous record of providing only minimum appropriations for the Air Service. The past lack of funds was due in part to an isolationist attitude, in part to War Department tradition and in part to the Congressional ignorance of the real value of air power. Regardless of the exact ratio of each cause the damaging effect of insufficient funds had become obvious to the nation.[46]

On March 27, 1916, Congress began to react to the pressures of the press, the Aero Club and the situation in Mexico. Although the legislatures considered Hawley and his associates " . . . high-minded, honest, patriotic, intelligent [aerial] faddists . . . extreme in their criticism and lacking in information," it could no longer brush aside the severe need for

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[45]"A Few of the Many Editorials That Have Appeared In the Press Condemning Aerial Unpreparedness," Flying, April, 1916, pp. 106, 107, 137, 138.

[46]New York Times, April 4, 1916, p. 12, U.S., Congress, House, Representative Bennet speaking for Bill H.R. 13768, 64th Cong., 1st sess., March 28, 1916, Congressional Record, Vol. LIII, p. 5018, and Foulois Autobiography, p. 118.

preparedness funds.[47] The United States Army was in Mexico, out of funds and out of equipment, the expedition had begun to flounder and the American public was beginning to realize the nation's lack of military capability. United States' private investments were at risk, and there was still a sincere desire to punish Villa for his villainy. In reaction to these, and other causes, an Urgent Deficiency Bill was introduced, March 27, 1916. The Bill was rapidly debated and passed through the House of Representatives by March 28, 1916.[48]

Secretary of War Baker, well aware of the immediate needs of Pershing, authorized an expenditure of 80,000 dollars for the purchase of eight new aircraft. Four steel battleplanes were ordered from the Sturtevant Aeroplane Company, Jamaica Plains, Massachusetts; and four Curtiss R-2 aircraft were ordered from the Curtiss Corporation at Buffalo, New York. All aircraft were to be equipped with 140 to 150 horsepower engines and be adopted for Mexican use. The machines, to be delivered in thirty days, would undergo suitability tests prior to their delivery to the border.[49]

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[47]U.S., Congress, House, Representative Fitzgerald reported the bill to supply urgent deficiencies for the Military Establishment (H.R. 13768), 64th Cong., 1st sess., March 27, 1917, Congressional Record, Vol. LIII, p. 4933; Representative Fitzgerald discussing H.R. 13768, 64th Cong., 1st sess., March 28, 1916, Congressional Record, Vol. LIII, p. 5019, and a survey of Congressional Action 1912 to 1916 in Congressional Record.

[48]Ibid., pp. 4933, 5017-5023. The House voted 374 to 1, with 59 members absent in favor of the Bill H. R. 13768.

[49]"Sturtevant Aeroplanes for General Pershing," Aerial

On March 31, 1916, in response to the country's needs Congress passed the Urgent Deficiencies Bill for the Military Establishment. The Bill appropriated 600,000 dollars of which 500,000 dollars were allocated for " . . . the purchase, maintenance, operation and repair of air ships and other aerial machines and accessories of the aviation section. . . ."[50] This sum, an emergency fund, was the largest even appropriated, at the time, for the Army Air Service.[51]

Immediate steps were initiated by the Chief Signal Officer to transform the funds into military materials. A War Department Aviation Section Advisory and Inspection Board was formed to test aircraft and inspect factories. Consisting of Lieutenants Milling and Byron Q. Jones, Captain Clark, and supporting civilian consultants, it met to select a suitable aircraft for the Mexican campaign. One of its first actions was to dispatch a telegram to Foulois requesting his recommendations for aircraft specifications.[52]

Age Weekly, April 24, 1916, p. 193; and "More Aeros and Larger Engines for the Mexican Campaign," Aerial Age Weekly, April 10, 1916, p. 116.

[50]U.S., Statutes at Large, Vol. XXXIX, pt. 1 (December 1915 - March 1917), "Urgent Deficiencies Appropriations for the Military Establishment," March 31, 1916, ch. 56, p. 45.

[51]Report of the Secretary of War, in U.S., War Department, Annual Reports 1916, Vol. 1 (Washington D.C.: Government Printing Office, 1916), p. 26, hereafter cited as Annual Reports 1916.

[52]Ibid., and "Baker Talks," Aerial Age Weekly, April 17, 1916, p. 141.

Secretary of War Baker, with Congress' Deficiency Bill passed, an aviation board appointed, and new aircraft ordered; happily informed Hawley and his associates that their services were not really needed. He wrote "the Department . . . appreciative/ness/ of your kind /past/ offer /for aircraft/, but . . . Congress has appropriated the sum of $500,000 for aviation purposed, which makes it unnecessary . . . to take advantage of your kindness."[53]

As the long awaited Congressional action formented, and began to be implemented, a realistic reappraisal of the First Aero Squadron's capabilities was being formulated by Foulois. He realized that with his present equipment it was impossible to continue all operations. A suitable support plan had to be developed presented to Pershing and if accepted, followed. Foulois developed four alternative schemes, each " . . . for the most effective use of the 1st Aero Squadron, with its present equipment of six low powered airplanes."[54]

Plan I had a stated objective of " . . . maintain/ing/ aero communications between Columbus, New Mexico, Casas Grandes, El Valle and Namiquipa."[55] Foulois proposed to station two JN2's at El Valle with support personnel and equipment. The

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[53]"The Mexican Situation," Aerial Age Weekly, April 17, 1916, p. 161.

[54]Memorandum For: Chief of Staff, Punitive Expedition, U. S. Army, March 30, 1916, "First Aero Report," p. 3.

[55]Ibid.

remaining aircraft were to stay at Casas Grandes. Routes would be operated daily by single flights, with overnight stops between El Valle and Namiquipa; Casas Grandes and Columbus; and Casas Grandes and Namiquipa. The " . . . plan contemplat/ed/ the maximum use of all aviators and all aeroplanes . . ." but, it did not provide a communications network east, south or west of Namiquipa.[56]

Plan II was designed to provide General Pershing aerial communications between Casas Grandes, El Valle, Namiquipa and points south of Namiquipa. By utilizing available radio-telegraph, motorcycles, and other surface transportation for the Casas Grandes, El Valle link, Foulois surmised the entire squadron could be transferred to the forward headquarters at Namiquipa. Refueling points would be established at all bases, including a forward station somewhere south of Namiquipa.[57]

Plan III relied upon an effective radio and telegraph link between Namiquipa and Casas Grandes. All aircraft would be concentrated at Namiquipa to provide forward communications between Pershing and his advancing troops: only in an emergency would aircraft be used for support communications. This plan provided the maximum support for field operations and the minimum communications support for logistical and support facilities.[58]

Plan IV, the final plan, was to be employed in case a tac-

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[56]Ibid. [57]Ibid., p. 4. [58]Ibid.

tical contingency arose. It employed the JN2's for their original purpose: observation and reconnaissance of the enemy. In it, Foulois recommended that if contact with Pancho Villa was established by the expedition's forces, all aircraft should be concentrated at the front for immediate service.[59]

In proposing the alternative available, Foulois reminded General Pershing that all plans depended entirely on aircraft that " . . . at any day /could/ be placed out of commission as unfit and too dangerous for further field service."[60] He urged that at least ten new, high powered, machines be purchased and with these the Squadron would increase its " . . . effectiveness to this expedition at least five hundred percent."[61]

On April 1, 1916, Pershing approved Plan III, and ordered that it be implemented.[62]

The Mexican punitive expedition was only fifteen days old as March 1916, ended. Over 4000 American troops had penetrated nearly 500 miles into Mexico. None had seen Villa, and less than 10 percent had identified a Villista, and this only on one occasion. The men's rations were low, and most were foraging off the earth or dipping into personal funds to support their

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[59] Ibid.

[60] Ibid.

[61] Ibid.

[62] "First Aero Report," p. 5.

needs.[63]

The aviation activity, only in the field ten days, had been fully taxed and its equipment was paying the price. Out of eight original aircraft, six remained. At times only two of these were operative. Pershing, unable to control his forces by radio, telegraph, or car had resorted to an aerial communication link, but it too was rapidly failing.[64]

Congress and the Nation had cheered when the pursuit of the villain Villa was first announced, but both failed to recognize the inability of America's military to capture even one Mexican hostile. However, less than sixteen days had elapsed before the weaknesses of the military establishment became apparent and the unprepared Americans reacted. The first solid proof of this, the Urgent Deficiency Bill of March 31, 1916.

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[63]Orlando C. Troxel, "The Tenth Cavalry in Mexico," The Cavalry Journal, October 1917, pp. 201-203. Captain Troxel states that his unit ate their last issued rations on the day they deployed to the field, March 20, 1916. Each officer used his personal funds to support the expedition as it foraged off the countryside. Colonel Brown issued his own personal checks for a total sum of 1,680 dollars in order to purchase food and forage for his command.

[64]New York Times, March 28, 1916, p. 2. Secretary of War Baker announced, March 27, 1916, that only two aircraft were serviceable as of that date.

CHAPTER VII

STALEMATE IN MEXICO

General Pershing's expedition halted, then stagnated in April 1916. Although Villa's hiding place was not uncovered, Pershing was forced to order a partial withdrawal and consolidation of the expedition. By the end of the month, the operations in Mexico resembled a gigantic field maneuver more than an active pursuit.[1] April 1916 was also a decisive month for the First Aero Squadron: it collapsed completely and ceased all operational support.[2]

After the battle at Guerrero, March 29, 1916, Villa's army scattered. Stories and rumors were widespread as to his actual location, and at times he was reported to be in several places simultaneously.[3]

Pershing, acting on reliable information, ordered Major Tompkins, at Namiquipa, to search the area west of Santa Ana for Villa while Major Howze, at Geronimo, scouted the mountains to the east. Pershing, meanwhile, relocated his headquarters to Bachinva. On April 1, 1916, both officers reported to

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[1]Toulmin, With Pershing in Mexico, p. 113.

[2]"Pershing Report," p. 23; and "Foulois Report," p. 8.

[3]"Pershing Report," p. 17.

Pershing with completely negative reports. Villa had apparently vanished; Pershing resumed his first strategy: the campaign of parallel columns toward the south.[4]

Major Tompkins' column in the center served as the point. Colonel Brown was placed the furthest east. Moving a day's march behind Tompkins, he and his men provided a left rear guard. Major Howze furnished a similar role as the right rear guard to the west. All three forces were expected to converge near the Chihuahua-Durango border.[5]

Colonel Allen's forces, three days to the rear, formed the rear guard. He was directed, April 2, 1916, to move from Namiquipa, southwest via El Oso, in an attempt to cut Villa's path before he crossed into Durango. Although Allen's men encountered sniper fire, they uncovered no real information. By April 12, 1916, they rejoined Pershing at Satevo.[6]

Colonel Dodd was given the task of sealing off the western mountain trails. Dodd's patrols deployed on a line from Providencia and Minaca watched the mountain passes carefully and recorded frequent clashes with the insurgents. On April 8, 1916, Dodd decided to move his headquarters to Minaca in order to extend his operations nearer to Guerrero. The local Mexican commander, General Luis Herrera, protested that the American

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[4]Ibid.

[5]Ibid., Tompkins, Chasing Villa, p. 120; and Toulmin, With Pershing in Mexico, pp. 107-108.

[6]"Pershing Report," p. 20.

patrols would interfere with Carranzista plans. Dodd appealed to Pershing for diplomatic assistance. The appeal was successful, and Dodd continued his operations from the new location.[7]

The First Aero Squadron's activities the first six days of April were quite normal. Between April 1 and April 4, 1916, forty-three mail or dispatch flights were flown through rain, hail and snow storms. Several times, when the weather was too severe for visual flight, the aircraft were forced to land and wait out the storms.[8]

On April 5, 1916, the Squadron moved to San Geronimo. The trucks and maintenance personnel went direct, while the aviators flew sorties intransit. Typical was the mission flown by Lieutenant Dargue and Captain Foulois. Tasked with locating Brown's column for Pershing, the fliers headed toward San Antonio de los Arenales. En route they spotted a pack train returning to San Geronimo. A landing was accomplished, and the officers inquired if the members of the pack train knew where Brown was. Fortunately they did, and Airplane 43 was soon airborne and proceeding toward Cusihuiriochic Canyon. A short time later, the aviators reported to Brown, secured the column commander's report for Pershing, and returned to the Division Headquarters.[9]

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[7]Ibid., pp. 17, 20-21.

[8]April 1, 1916 to April 5, 1916, "First Aero Report," p. 5.

[9]April 5, 1916, "First Aero Report," p. 5.

On April 6, 1916, four such missions were flown. One delivered movement orders to Brown's column, who was ordered to protect the eastern edge of the search area. This mission resulted in the destruction of Airplane 44. The craft was totally destroyed in a landing: those parts still usable were salvaged, the remaining air frame was condemned and destroyed--only five airplanes remained.[10]

Along with the hazards of flying, the First Aero Squadron was also encountering the ill-will of the Mexican populace. On April 7, 1916, Dargue and Foulois, in Airplane 43, flew from San Geronimo to Chihuahua City carrying dispatches to Marion H. Letcher, the American Counsel, from General Pershing. The papers obviously had a greater than normal urgency, as Captain Dodd and Lieutenant Carberry, in Airplane 45, departed at the same time with a duplicate set of dispatches and an identical mission. In addition to serving as a courier Foulois was detailed to arrange for the local purchase and transportation of necessary supplies for those troopers operating north of Parral.[11]

Both aircraft arrived at Chihuahua City concurrently. By pre-arrangement, Airplane 43 landed on the south side of the city, and Airplane 45 on the north side. Foulois gathered

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[10]April 6, 1916, "First Aero Report," p. 6.

[11]April 7, 1916, "First Aero Report," p. 6.

his documents, climbed out of the rear cockpit, and instructed Dargue to fly to the north side of town, join Carberry, and wait for his return. Foulois then departed for the Consulate. As Dodd began his take-off roll, four mounted rurales, a half mile distant, began to fire at him and the aircraft. Foulois, still within earshot, heard the gunfire. He reversed his direction, quickly located the rurales and attempted to stop their activity. The rurales, distracted by Foulois' actions did stop shooting, but in the process, they arrested Foulois and marched him to the local jail. A crowd of several hundred men and boys, attracted by the disturbance, soon gathered and formed an escort for the jail bound procession. In the confusion enroute to detention, Foulois successfully attracted the attention of an American bystander. The aviator requested the man to inform Consul Letcher of his plight, as well as the possibility of a similar precarious situation on the north side of town where Dodd, Carberry and Dargue were with the aircraft.[12]

Once at the jail, Captain Foulois succeeded, after considerable delay, in contacting Colonel Miranda, Chief of Staff to General Gutierrez, the Military Governor of Chihuahua. Miranda, when appraised of the situation, took Foulois to Gutierrez, who swiftly ordered the aviator's release. Foulois was still apprehensive about the real possibility of the two

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[12]Ibid.

aircraft being damaged. He requested the services of some Mexican soldiers as aircraft security guards. Gutierrez agreed to arrange this. Foulois, accompanied by Miranda, then departed to locate the other aviators. Upon reaching the north landing site, only Dargue and Airplane 43 were in sight.[13]

Dargue reported that he had landed along side Airplane 45 as directed. Captain Dodd left shortly after that, bound for the Consulate with the duplicate dispatches. The aircraft rapidly became the focal point for first a curious gathering, which soon transformed into a menacing crowd of peasants, soldiers, and Mexican army officers. As the mob increased in size, it became more antagonistic and began to make aggressive moves. Insults, at first, were the crowd's only weapons, but in a short time the aviators found members of the angry mob extracting bolts and nuts, or burning holes in the linen fabric with cigarettes. Airplane 43 was slashed in several places. Under the circumstances, it did not take Dargue nor Carberry a great about of time to realize that if they remained they would soon have two wrecked JN2's.[14]

The safest, and therefore best decision, was to fly the aircraft to the smelter location of the American Smelter and Refining Company six miles away. Carberry fired up and departed without further difficulty. The crowd, seeing their prey about to vanish, showered Dargue with stones as he taxied out and

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[13] Ibid. [14] Ibid.

made his take-off roll. He was soon airborne, but had flown only a short distance when the top section of his craft's fuselage, obviously missing a few bolts, flew off and hit the vertical stabilizer. He was forced to make an emergency landing still within sight of the mob. He fortunately was able to stand off the crowd, and neither he nor Airplane 43 suffered further damage.[15]

The day's excitement was over, but work remained to be done. For the remainder of the day, Captains Foulois and Dodd and Consul Letcher arranged for the troop supplies while Carberry and Dargue repaired the damaged Airplane 43.[16]

On April 8, 1916, the aviators were again airborne. They arrived back at San Geronimo just in time to receive the notification of another move, to San Antonio de los Arenales. Pershing's army was pushing south, and the headquarters and its sole rapid source of communications had to travel with it. On April 10, 1916, two reconnaissance flights scoured the area fifty miles south of the home base. Not a single Villista was seen.[17]

Pershing moved his headquarters again. This time to Satevo. The Air Service, his automobile and his personal staff also made the move, April 10, 1916.[18]

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[15]Ibid. [16]Ibid.

[17]April 8, 1916 to April 11, 1916, "First Aero Report," p. 6.

[18]April 10, 1916, "First Aero Report," pp. 6-7.

The next day's flying activities, the first from Satevo, resulted in ten sorties, almost all courier missions between the columns and rear depot areas. On one of these, Lieutenants Dargue and Gorrell established an unofficial distance record. In Airplane 43, they flew from the front (San Antonio de los Arenales) to Columbus, New Mexico, a distance of 315 miles, with just a single fueling stop.[19]

Lieutenant Chapman, on a reconnaissance mission to Santa Rosalia, had a more ominous experience. Upon landing Airplane 53 at Santa Rosalia, Chapman disembarked from the aircraft. He was immediately placed under arrest by Carranzista troops and escorted to the local garrison commander. During his very short internment, the Mexicans stripped his aircraft of his field glasses, flying goggles, and "considerable" ammunition.[20]

Chapman was not the only member of the Squadron to have trouble with the local people, April 11, 1916. The Squadron truck train arrived at Satevo at 11:00 p.m. They reported encountering Villista sniping fifteen miles north of Satevo. Fortunately, there were no casualties.[21]

Major Howze, camped near San Jose del Sitio, was also experiencing difficulties with the Mexican population. On

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[19]April 11, 1916, "First Aero Report," p. 7; and "The Mexican Situation," Aerial Age Weekly, April 24, 1916, p. 193.

[20]April 11, 1916, "First Aero Report," p. 7.

[21]Ibid.

April 10, 1916, he sent a detachment to Santa Cruz de Herrera. The troop was under fire several times during the day. At about 5:30 p.m. they came under an active attack near La Joya de Herrera. The troopers easily contained their adversary, and soon dispensed the bandit force, killing its commander in the process. Before daylight, April 11, 1916, Howze's detachment had arrived and surrounded Santa Cruz de Herrera. The Mexicans within sensed an ambush, and attempted to escape. In the darkness it was impossible to tell who was fleeing, but the Americans fired anyway. A Carranzista Lieutenant and soldier were the only possible enemy deand, and Howze, although he tried, was unable to identify the force that had fled.[22]

Howze's main column, weary from two days rapid march, was given a rest and a detachment was sent into town to secure supplies. On the way they passed a ranch house abustle with unusual activity. The detachment, intent on its task, passed by without investigating. It was later thought Villa was hiding there. He was not, but he was in the mountain above, secure in his cave and within earshot of camping troopers. Howze's action in this area was probably the closest Villa came to being captured by the expedition.[23]

Howze's attack had killed only Carranzistas. He, as well as the other field commanders, was finding more and more

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[22]"Pershing Report," p. 19; and Tompkins, Chasing Villa, p. 160.

[23]Ibid., and Carranza, "La Expedicion Punitiva," pp. 291-294.

hostility as the expedition advanced. The real feeling of antagonism of the Carranza government toward the United States' invasion of Mexico was gradually coming out in the open.[24]

Instead of help, the natives persisted in assisting Villa by furnishing Pershing's men misleading intelligence. Further, it became quite evident that the Mexican peasants, although awed by American methods, thoroughly resented their presence. Even those opposed to Villa had no sympathy for the "Gringos," therefore aid from the Carranzistas was unlikely.[25]

The expedition was approaching the end of its tether. Pershing's lines of communication and supply were very nearly over-extended. The troopers were foraging off of the country.[26] It was quite apparent that the sole purpose of Carranza and his army was to detour, hamper, and eventually force the withdrawal of the American army. Eventual northern retreat was a certainty, all that was needed was an incident to force it. Parral furnished the incident.

On April 7, 1916, Major Tompkins, camped at Santa Rosalia, considered his situation. His flanks and rear were blocked by 2000 to 3000 Carranzistas. Scattered 50 to 100 miles south,

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[24]Telegram, Pershing to Funston, May 1, 1916, Foreign Relations 1916, p. 539.

[25]Telegram, Pershing to Funston, April 17, 1916, Foreign Relations 1916, pp. 521-522.

[26]Telegram, Pershing to Funston, April 15, 1916, Foreign Relations 1916, p. 526.

on his front, were at least 300 Villistas. He needed forage for his horses, rations for his men, and his mission required that he cover the area to the south, as well as effect a rendezvous with Colonel Brown. Tompkins considered the alternatives, and decided to head for Parral, purchase supplies, and then move thirty miles further southwest of Parral and await orders.[27]

On April 12, 1916, at 11:45 p.m. the command arrived at Parral; a large town with a population of 20,000, and a "good club." Tompkins and his officers assumed they could get " . . . hot baths . . . , long cool drinks and . . . good food," as well as replenish troop supplies, and obtain railroad transportation for movement further south.[28] However, no officials awaited to welcome the Americans. Instead, Tompkins had to gain permission from the city guard to enter. Accompanied by a Carranzista soldier, Tompkins and his men were guided to General Ismael Lozano's headquarters, a two-story building near the center of town. Tompkins entered, and the troopers formed ranks outside the building.[29]

The Mexican general was not pleased to have American cavalry in his city. He asked Tompkins to leave Parral, but promised to arrange for the purchase of fodder and provisions for

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[27]Tompkins, Chasing Villa, p. 133.

[28]Ibid., p. 137.

[29]Ibid.

the purchase of fodder and provisions for the Americans through a local merchant, Mr. Scott. Scott, described by Lozano as American, appeared to be a Mexican and spoke English with a heavy accent. After the business was completed, Lozano delayed an hour before he was ready to take Tompkins to a designated camp site.[30]

While the two officers conferred an angry crowd had gathered in the street. By the time the conference ended cries of "Viva Villa," "Viva Mexico," and "Muertan los Gringos!" were being shouted. Tompkins ordered an immediate withdrawal and the column moved out.[31]

The populace was spurred on by a "German" looking man with a "Van Dyke beard," later identified as the German Counsel, Edward Cook. Eliza Griense, a member of one of the leading families in Parral, was in the front of the mass that followed the troop's hasty march. When they reached the edge of town, Miss Griense raised a Mauser rifle she had borrowed from a Mexican soldier, and began to fire it. The crowd surged through and around the troopers' ranks, and succeeded in cutting off Tompkins, who was riding at the rear, and threatened him. Tompkins in an attempt to humor the riled citizens shouted "Viva Villa."[32]

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[30] Ibid.

[31] Ibid., and "Attack on Our Cavalry at Parral," The Cavalry Journal, November, December 1916, p. 251.

[32] Carranza, "La Expedicion Punitiva," p. 115; Tompkins,

General Lozano had been at the head of the column. He was at first ignorant of the situation at the rear. Once the gun fire began he must have heard the report, but he did not investigate. Instead he continued to lead the column across the railroad track and through a gap between two knolls into a hollow. Tompkins, afraid of an ambush established a rear guard a kilometer outside of town, under Lieutenant Clarence Lininger, covered his flank by placing a troop on the western knoll, and notified Lozano that the townspeople were shooting at him and his men. Lozano disclaimed all responsibility for the situation, but had his staff return to town to try to calm the populace. Tompkins, certain Lozano had treachery in his head, considered shooting the Mexican general on the spot, but " . . . let him go as his pistol was still in his belt."[33] Tompkins' generosity was probably influenced by the large group of Mexican soldiers, displaying a Mexican flag, that had gathered on a hill 600 yards to the south. Lozano quickly returned to town, and sent a message to Tompkins requesting his immediate withdrawal as " . . . he could control neither the soldiers nor the people."[34] Tompkins agreed to move north after the supplies

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Chasing Villa, p. 135; Telegram, Pershing to Funston, April 15, 1916, Foreign Relations 1916, p. 520; "Pershing Report," pp. 21-23; and Telegram, Pershing to Funston, April 16, 1916, Foreign Relations 1916, p. 526.

[33] Ibid., and Tompkins, Chasing Villa, p. 138.

[34] Ibid., and "The Attack on Our Cavalry at Parral," p. 251.

he had ordered were delivered.[35]

Tompkins soon changed his mind. In the face of hostile action, 20,000 enraged Mexicans, 400 Mexican soldiers, and gunfire, a retreat northward was the only prudent course. A group of Mexican soldiers attempted to flank the Americans on the left, Tompkins stood up, the Mexicans fired missing the Major, but killed Sergeant Jay Rickley and wounded a corporal and private. At 1:30 p.m., Tompkins ordered a hasty withdrawal to Santa Cruz de Villegas, a small village, that could be easily defended by the American cavalry unit.[36]

The fifteen mile ride to the north was characterized by sporadic fire fights and the continual effort by mounted Mexicans to out flank the retreating cavalry men. The able troopers successfully negated every move, and by 4:00 p.m. arrived safely in the small village. Defensive positions were secured, and the wait for reinforcements began.[37]

During the retreat, Tompkins had dispatched couriers to Colonel Brown informing his senior officer of his precarious position. By 7:00 p.m., members of Brown's column began arriving at Santa Cruz de Villegas. The next day, April 13, 1916, Allen arrived. Two days later Major Howze, also aware

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[35]Tompkins, Chasing Villa, p. 138.

[36]Telegram, Pershing to Funston, April 15, 1916, Foreign Relations 1916, p. 520; "Pershing Report," pp. 22-23; and Tompkins, Chasing Villa, p. 139.

[37]Ibid., pp. 139-142; Carranza, "La Expedicion Punitiva," p. 116; and "Pershing Report," p. 23.

of the skirmish, reported to Brown, and the troop strength at Santa Cruz swelled to 640 men.[38] Howze, himself, had very nearly had a "Parral" five days earlier, April 8, 1916, when 150 Carranzistas commanded by General Colvasso had charged his unit. Only by Major Howze's " . . . coolness . . . and splendid discipline /of/ command was battle averted."[39]

The encounter at Parral resulted in two Americans dead, six wounded including Tompkins, and one man missing. Over forty Carranzistas were assumed dead and an unknown number wounded.[40] The American expedition had reached its furthest point south.

While Tompkins, Brown, and Allen were advancing on Parral, Pershing had lost all contact with them. He ordered the First Aero Squadron to contact them, but the reconnaissance missions on April 10 through April 13, 1916 failed to reveal the whereabouts of the columns. On April 14, 1916, Pershing received the first news of the Parral fight from Captain Foulois.[41]

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[38]Telegram, Pershing to Funston, April 15, 1916, Foreign Relations 1916, p. 52; and Tompkins, Chasing Villa, p. 143.

[39]Telegram, Pershing to Funston, April 25, 1916, Foreign Relations 1916, p. 530.

[40]Tompkins, Chasing Villa, pp. 143-144, "Attack on Our Cavalry at Parral," p. 253; and "Pershing Report," p. 23.

[41]Telegrams, Collector Cobb to the Secretary of State, April 15, 1916, Foreign Relations 1916, pp. 519-520; and April 12, 1916, to April 14, 1916, "First Aero Report," p. 7.

Foulois and Lieutenant Carberry had been dispatched, April 13, 1916, to Chihuahua City with messages for the Consul. Pershing also detailed Foulois to query Marion H. Letcher for any late intelligence on developments in the field. The aviators landed on the outskirts of town, and Foulois walked to the Consulate. Upon his arrival he learned of the fight at Parral. Consul Letcher told him all the Mexican newspapers in Chihuahua City had been shut down and that there was a great animosity for all foreigners in the city. The Mexicans had warned them all th leave.[42]

The Consul gave Foulois an ultimatum for deliver to Pershing from General Gutierrez, the Military Governor of Chihuahua--the American forces must withdraw at once! As it was unsafe for any foreigners to travel through the city, Foulois remained at the Consul until early the following morning. In the early darkness of April 14, 1916, he returned to his aircraft, flew back to Satevo, and delivered Gutierrez' ultimatum and the news of the Parral fight to General Pershing.[43]

Pershing immediately re-ordered Foulois back to Chihuahua City, only this time by automobile, as all the aircraft were either airborne or grounded for maintenance. Foulois, accompanied by fourteen enlisted men in a one truck, one auto caravan, made his way to Chihuahua City. Once on the outskirts,

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[42]April 13, 1916, "First Aero Report," p. 7; and "Foulois Record," p. 7.

[43]Ibid.

the vehicles and the enlisted personnel were hidden, and Foulois and his chauffeur, Corporal Arthur Westermark, proceeded to the Consulate, delivered the dispatches and without any difficulty returned to the waiting escort. The entire group returned to Satevo, late that same evening.[44]

The airborne portions of the First Aero Squadron were having less success. Lieutenants Dargue and Gorrell, in Airplane 43, attempted to establish contact with Carranzista forces reported to be moving eastward along the lines of communications. The two aviators departed Columbus, New Mexico, and flew the entire 315 mile route non-stop. They set a new record, but failed to locate any hostile troops. Lieutenant Rader, on a similar mission, flew southward toward Parral. As well as locating Carranzistas, he was directed to establish contact with Howze's column and inform him of the Parral encounter. He succeeded in reaching the cavalrymen in the vicinity of Ojitio, near the Durango State line. The terrain was extremely rough, and the aircraft, Airplane 52, was damaged upon landing. Unable to make repairs, and in hostile country 100 miles from the nearest aircraft maintenance facilities, Rader joined Howze and Airplane 52 was abandoned.[45] Unfortunately, the "news" Rader had was already possessed by Howze.[46]

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[44]Ibid., and April 14, 1916, "First Aero Report," p. 7.

[45]Ibid.

[46]Tompkins, Chasing Villa, p. 167.

Between April 15 and April 20, 1916, the activities of the First Aero Squadron degenerated. On April 14, 1916, four flights were made: One, by Lieutenants Dargue and Gorrell was of 415 miles with only two enroute stops. But, on the same day, Airplane 42 was cannibalized of its lower wings in order to put Airplane 45 into flyable condition. The remainder of Airplane 42 was condemned and destroyed.[47] On April 16, 17, and 18, 1916, the squadron was able to support only two courier flights per day. During this period, on April 16, 1916, the Division Headquarters made its first move northward, back to Maniquipa. The following day, the First Aero Squadron followed it.[48]

April 19, 1916, marked the squadron's last day of activity. Lieutenants Dargue and Willis were sent aloft in Airplane 43, on a reconnaissance mission. They were briefed to scout the area between San Antonio de los Arenales and Chihuahua City as well as photograph all the approaches to Chihuahua City. Engine failure ended their photography. Dargue landed the aircraft in an area of rolling hills west of the city. In the ensuing emergency crash landing, the machine was totally destroyed. Willis was pinned under the wreckage, and sustained a severe scalp wound as well as bruises on his legs and ankles.

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[47]April 15, 1915, "First Aero Report," p. 8.

[48]April 16, 1916, thru April 20, 1916, "First Aero Report," p. 8.

Dargue, in the front cockpit was uninjured. He assisted his observer from the wreck. The two aviators gathered their personal gear; burned the airframe and began the sixty-five mile walk to the nearest base, San Antonio de los Arenales. Their only provisions for the walk across the desert were a days rations of cake, chocolate, bread, hardtack, and a pressed meat bar. Forty-five hours and two mountain ranges later, on April 21, 1916, they arrived in a weak, but alive condition. On April 23, 1916, they proceeded by automobile to Namiquipa, where they delivered their reconnaissance report to General Pershing.[49]

During Dargue's and Willis' ordeal, the First Aero Squadron had been ordered back to Columbus, New Mexico. Of the eight aircraft flown south into old Mexico, only two, Airplanes 45 and 53, remained; and they were condemned as unsafe for further field service. These two old JN2's were flown to Columbus, and eventually destroyed. By April 22, 1916, all personnel of the First Aero Squadron were relocated in the United States: their service as the eyes, ears, and mouths of the expedition at an end.[50]

The entire character of the campaign changed after Parral. The southern most advance of Pershing's forces came to a halt and a slow withdrawal northward was initiated. The relations

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[49]New York Times, April 26, 1916, p. 4 and April 19, 1916, "First Aero Report," p. 8.

[50]April 20, 1916, "First Aero Report," p. 8.

between the Mexican government and the government of the United States had reached the point where the positioning of troops as far south as Parral was no longer practical. Although Colonel Brown, the Senior Officer at the immediate front, was fully capable of controlling the local situation tactically, he was in no position to secure logistical support for the four columns. Their rapid push southward had resulted in a thinly stretched line of communication and supply 180 miles long, which reached back to San Antonio de los Arenales. These if used, could be subject to attack at any time. Pershing, well aware of the situation, dispatched his Chief of Staff, Colonel DeRosey C. Cabell, to Brown's headquarters with orders to effect a northern withdrawal, if an investigation of existing conditions warranted it. Pershing had ended his campaign of columns.[51]

On April 21, 1916, the cavalry began the movement northward. By May 3, 1916, almost all the units of the Mexican punitive expedition were assembled in the area around San

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51"Pershing Report," p. 23; "Monograph," p. IV-10; Tompkins, Chasing Villa, pp. 170-171; and Extract, Pershing to Funston, April 15, 1916, Foreign Relations 1916. Although Brown felt he had the situation in order, the Commander of Mexican forces at Parral issued him an ultimatum, in writing, forbidding the further southward penetration of American troops. Circular Telegram, Secretary of State to all American Counsels in Mexico except those at Chihuahua City and Mexico City, April 18, 1916, Foreign Relations 1916, p. 524. Indicators also began to arise, foretelling of future Mexican troop concentrations to force American withdrawal. Telegram, Consul Letcher to the Secretary of State, April 17, 1916, Foreign Relations 1916, p. 522.

Antonio de los Arenales.[52]

Tompkins summed the results of the pursuit as:

> It was a hot little campaign of less than two weeks, essentially cavalry and typical of our cavalry campaigns against the Indians immediately following the Civil War. [We] . . . will never see [another] one like this . . . . The airplane and the raio have changed all that . . . . It was the last appearance of the Old Cavalry.[53]

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[52]Tompkins, Chasing Villa, p. 188.

[53]Ibid., p. 144.

CHAPTER VIII

THE FIRST AERO SQUADRON RETURNS TO COLUMBUS

The return of the First Aero Squadron to Columbus, New Mexico, marked the end of an adventure in the early history of the Air Service. The squadron's accomplishments had been few, but the experience gained was invaluable. The squadron's service to the expedition was filled with failures, but the message of failure was ultimately of greater importance than success itself would have been.[1]

The efforts of the aerial unit were aptly described in the June 1916, issue of Flying:

> . . . "the little old last year's aeroplanes at Columbus Army base, have folded up their tired wings and passed on to the Land Where the Woodbine Twineth, and from whence no traveler returns." At any rate these eight diminutive and tattered flyers which did their darndest--and it was no slouch of a job--to locate the elusive Villa over the dreary wastes of northern Mexico, have been dismantled and tenderly laid away in their figurative coffins. The work of dismantling was not a prodigious task, for owing to a War Department's faith in methods pursued by our forefathers, these dinky planes, ultra modern in their day, had long ago outlived their usefulness, and it required but a few well-directed taps with a

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[1]U.S., War Department, Historical Section, The Army War College, The Signal Corps and Air Service, A Study of Their Expansion in the United States 1917-1918 (Washington, D.C.: Government Printing Office, 1922), p. 31, hereafter cited as Signal Corps and Air Service.

> mallet and a turn or two with a screw-driver to reduce them to a pile of junk.
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> But they had done their work: bravely had they the task set before them, a task beyond their puny, 80 horsepower rated strength. They breasted the capricious winds, they dropped into the numerous air pockets of the Chihuahua deserts; they drooped under the torrential rains of this district, and they soared into the artic air of the mountains, but never once did they say "I quit" until physical disabilities forced them to. It was a noble work they did.[2]

Their noble work had ended with the loss of all serviceable aircraft and on April 22, 1916, the First Aero Squadron returned to Columbus, New Mexico, to secure new airplanes.[3]

Three days earlier, April 19, 1916, four new Curtiss N8 (JN4) aircraft had been delivered to the base.[4] These airplanes were not the ideal military machine for Mexican border use, but they were the only aircraft immediately available from any manufacturer. Although the engine, an OX5, was rated as more efficient than the older OX engine by Lieutenant Byron W. Jones, a member of the Aircraft Advisory Board, it still produced only 90 horsepower. Captain Foulois did not consider the aircraft suitable for field use.[5]

The four aircraft, Airplanes 60 through 63, were given rigorous practical field tests April 23, through April 29, 1916.

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[2]"No Aeroplanes for Mexican Campaign! III," Flying, June 1916, p. 196.

[3]April 20, 1916, "First Aero Report," p. 8.

[4]Ibid.

[5]Study 98, p. 172; and New York Times, April 26, 1916, p. 5.

The aircraft were soon found inadequate for Mexican service, and declared unusable. The seven aviators who flew in the tests were unanimous in stating that the aircraft should be used only if an extreme military emergency existed.[6] On April 27, 1916, General Funston declared to the War Department that the aircraft were unsuitable for military service.[7] On May 9, 1916, a board consisting of Captain Dodd and Lieutenants Dargue, Carberry, and Chapman recommended the condemnation of the recently purchased machines. They listed deficiencies of control, climbing ability, inadequate power, slow speed, weak landing gear, and defective manufacture as the reasons for rejection. Captain Foulois agreed with the board's recommendation, but condemnation never occurred. The machines were shipped to San Diego, California, for alteration and additional service.[8]

On May 1, 1916, the squadron finally received aircraft more nearly suited to the region, and the task at hand: The Curtiss R-2. The first shipment of two aircraft was rapidly followed by more, and by May 25, 1916, twelve, 160 horsepower, Curtiss R-2 aircraft sat on the flight line at Columbus, New Mexico.[9]

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[6]"First Aero Report," p. 8; New York Times, April 26, 1916, p. 5; and Study 98, p. 173.

[7]New York Times, April 28, 1916, p. 5.

[8]Study 98, p. 173.

[9]"First Aero Report," p. 8.

These airplanes were a bigger version of the JN2 and 4, and were " . . . adapted to military purposes calling for fast scouting and endurance flights. . . . ."[10] Capable of carrying a pilot, observer, and 200 pounds of cargo, the machines had a maximum speed of 90 miles per hour, and a seven hour cruise capacity.[11]

Although the R-2 aircraft were a definite improvement, and passed the Aircraft Advisory and Inspection Boards' criteria, the First Aero Squadron found them less than satisfactory. Foulois noted in his monthly report numerous and constant aircraft problems. During May, June, and July, 1916, he called attention to defective construction, motor parts and propellers. The aircraft were delivered with shortages ranging from missing touch up paint to non-installed compasses, brace wires and tail skids. The Curtiss Corporation products had a marked lack of craftsmanship, and each aircraft required a careful process of inspection, adjustment, modification, and repair prior to being placed in service.[12]

In total, on the twelve aircraft, eight-seven shortages, forty-four line defects, and twelve general deficiencies were noted by Captain Foulois. These included the requirement for bigger radiators, modified breaker cams, new magneto switches,

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[10] Curtiss 1916, p. 6. [11] Ibid.

[12] "First Aero Report," p. 8; and "Exhibit A, Shortages and Defective Equipment R-2 Aeroplanes," in "First Aero Report," [5 pages not numbered], hereafter cited as "Exhibit A." (Typewritten.)

stronger and safer truss wires, footbars for better aircraft control, and a complete replacement of all landing wheels. The wheel replacement was due to two landing gear failures on separate airplanes.[13]

Of all maintenance difficulties encountered by the First Aero Squadron, both in the field and at Columbus, New Mexico, the propeller problem was the greatest. The excessively dry air along the Mexican border aggravated a propeller problem that had initially appeared in April 1915.[14]

On April 8, 1915, Captain Dodd had experienced one of the earliest propeller malfunctions on a flight from San Diego to San Francisco, California. The propeller " . . . broke near the tip and snapped the propeller shaft just in front of the crankcase."[15] Several months later, June 26, 1915, Lieutenant Gorrell lost another propeller after a severe engine vibration on a trip from San Diego to Long Beach, California. Both of these failures were considered isolated occurrences, until the unit arrived in Mexico.[16] There, under the harsh field conditions, propellers that normally could withstand hours of test stand operations, failed, shattering to pieces in minutes in

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[13] Ibid.

[14] "First Aero Report," p. 8; Annual Report 1916, p. 26, and Foulois Autobiography, p. 134.

[15] Letter, Captain Dodd to Lieutenant Colonel Goodier, April 14, 1915, in "Goodier Court Martial."

[16] Study 98, p. 139.

the dry air. It was assumed by maintenance experts that the glue was drying out between the wood laminations.[17] Therefore, a new squadron policy was instituted: propellers were removed from the aircraft between flights and stored in a humidor in order to preserve the binding glue's viscosity.[18]

In order to find a more practical solution, a propeller test site was established at Columbus, New Mexico in late April 1916. Propellers were procured from aircraft manufacturers throughout the United States and then subjected to rigorous testing. This procedure, although understandably slow due to makeshift test facilities, produced uniform results: practically all the propellers received were unserviceable.[19]

On June 29, 1916, the Curtiss Aeroplane Company sent three propeller experts to Columbus, New Mexico, to establish a propeller production shop. Utilizing various types of wood, and a special test stand created by First Aero Squadron maintenance personnel, a more elaborate series of tests were conducted. As a result, extensive data on propeller durability was gathered by the joint efforts of the contractor and military. The work progressed to a point that satisfactory propellers were being

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[17]"Difficulties of the Mexican Campaign," Aerial Age Weekly, July 3, 1916, p. 470.

[18]Study 98, p. 169.

[19]"First Aero Report," pp. 8-9; and "Foulois Record," pp. 7-8.

produced within a month.[20]

The mechanical and maintenance difficulties highlighted by such experiences of the First Aero Squadron pointed out immediate national need to develop manufacturing standards and minimum specifications in the new science of aeronautics.[21] As a direct result of the inadequacies of the Mexican expedition, underscored by the growing awareness of the probability of the United States' entry into World War I, the first step toward the standardization of aircraft manufacture was taken. Working arrangements, under the auspices of the National Advisory Committee for Aeronautics, were established between the Bureau of Standards, the American Society of Aeronautic Engineers, and the Society of Automobile Engineers. The first meeting was held July 18, 1916, at the Bureau of Standards. The failure of propellers was a major subject.[22]

The following day, July 19, 1916, a similar conference between manufacturers and military representatives met to discuss the standardization of aircraft manufacture. This

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[20]Ibid.; Annual Report 1916, pp. 26-27, "First Aero Report," p. 9; and "Exhibit A."

[21]Annual Report 1916, p. 27; and "Foulois Record," p. 7.

[22]"First Steps in Standardization Taken Under the Auspices of the War Department," Aerial Age Weekly, August 7, 1916, pp. 632-634; Howard E. Coffin, "Laying the Corner Stone for a Great Industry," Flying, August 1916, p. 282; Annual Report 1916, p. 27; "War Department Anxious to Co-operate with Manufacturers to Increase Standard of American Aeroplanes, Engines and Accessories," Flying, August 1916, pp. 283-287; and Annual Report 1917, pp. 3-7.

meeting was chaired by Lieutenant Colonel George O. Squier, the new chief of the Aviation Section who had replaced Colonel Reber, May 5, 1916. Reber had been reassigned as a result of the Goodier Court Martial Board findings. Aside from the general subject of standardization, the group considered motor overheat in the new 160 horsepower VX engine and propeller problems. It was suggested as an iterim fix on the latter, that all wooden propellers be shipped and stored in metal boxes with felt seals; that propellers on parked aircraft be covered with heavy canvas jackets lined with flannel; and, in the case of unscheduled landings, a woolen sock saturated with oil should be pulled over the blades. The ultimate solution, a metal propeller, was advocated. In a step toward that direction, a consulting engineer was authorized to assist any manufacturers who were attempting to produce the ultimate propellers.[23] From these meager beginnings, which resulted from the aerial support furnished along the Mexican border, the Air Service first began the application of field experience to manufacturer standardization.

In addition to the purely engineering tests, the squadron performed operational testing of new equipment and techniques. The Brock automatic camera project was renewed. Photo flight lines were flown, and mosaic maps " . . . superior to the road

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23"First Steps in Standardization Taken Under the Auspices of the War Department," pp. 633-634.

map . . .," were constructed.[24] The fine details of the terrain, available on the photos, were transferred to standard maps in an early attempt to create aeronautical navigational charts.[25]

By the end of May 1916, the squadron received its first armament, Lewis machine guns, bombs, and bombsights.[26] Lieutenant Gorrell, the Squadron Supply Officer, procured twelve Lewis machine guns. These represented nearly 50 percent of the Army's total Lewis gun arsenal. The guns, each weighing twenty-seven pounds, were to be hand held and fired from the shoulder. The squadron also received 100, 3-inch artillery shells, converted to bombs. The aircraft lacked the means to lift, carry, or aim the projectiles, and it was suggested that they could be hand dropped.[27] Gorrell later wrote of this armament:

> They were sent not for use, but so that certain authorities in Washington could tell the newspapers that we were equipped with bombs.[28]

While the bulk of the squadron busied itself around Columbus, New Mexico, two sections of aircraft were detached to Pershing's headquarters in Mexico. The first element returned to Mexico, June 24, 1916, six weeks after the entire squadron had returned

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[24]"First Aero Report," p. 9. [25]Ibid.

[26]"No Aeroplanes for Mexican Campaign! III," p. 196.

[27]Gorrell, pp. 24-25; and "Recommendations," "First Aero Report," p. 11.

[28]Gorrell, p. 25.

to Columbus. The delay in returning to the field was mainly attributed to the propeller shortage, although the processes of assembling and testing the new aircraft certainly was a factor.[29] These two sections, plus an additional two, ordered to the field September 29, 1916, remained with General Pershing's forces until the expedition's final withdrawal.[30]

The difficulties that the squadron experienced in supporting General Pershing were a result of the unexpected environment encountered in Mexico, the poor equipment possessed, and a lack of operational experience.

Early in 1915, Lieutenant Colonel Samuel Reber, Chief of the Air Service, had contemplated the problems that the First Aero Squadron might encounter at San Antonio, Texas, a much more satisfactory locale of operations than the plateaus and mountains of northern Mexico. Reber wrote, " . . . there is no cover for the squadron /aircraft/, there are not enough officer/s/ for the squadron, there are not enough men for the squadron, . . . /and/ there is not enough transportation . . ."[31]

The JN2 aircraft of the squadron were known to be overly dangerous. The serious lack of power of the OX engine and the control difficulties were correctly analyzed in the Fall of 1915, but proper corrective actions were not taken before the

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[29]New York Times, June 25, 1916, p. 2.

[30]Study 98, p. 176.

[31]Letter, Lieutenant Colonel Reber to Captain Cowan, January 7, 1915, in "Goodier Court Martial."

squadron was needed in the field.

The aircrew personal flying equipment was found equally inadequate. Reports of the expedition's progress frequently cited the numbed fingers and hands endured by pilots in open cockpits. Captain Foulois made a special note of this in his final report.[32] The flying uniform consisted normally of a football type helmet, gauntlets, a leather coat, and goggles over a service uniform.[33] It provided little protection from the elements. In May 1915, a board had been convened to consider aircraft instrumentation and personal equipment in order to achieve " . . . greater convenience and comfort . . . /and to/ increase flying efficiency."[34] Their findings however were too late for the aviators of the Mexican expedition who " . . . were constantly exposed to personal risk and physical suffering . . . ."[35] In addition, the cramped cockpits did not afford sufficient room for the survival equipment the aviator should have carried.[36]

These intrepid individuals found themselves and their aircraft deployed in an environment they did not anticipate. In the one month of operation they faced a combination of the

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[32]"Recommendations," "First Aero Report," p. 10.

[33]Gorrell, p. 27; and "Army Aviation Notes," Aerial Age Weekly, May 31, 1915, p. 257.

[34]Ibid.

[35]"Recommendations," "First Aero Report," p. 10.

[36]Ibid.

temperature extremes of a normal summer and winter. Their aircraft were buffeted by the severe air circulations over the desert and in the mountains. They were forced to operate from bases of the moment, their frail craft constantly exposed to sand, grit, snow, rain, and sleet.[37]

The extreme heat of the desert areas made the mechanic's tools too hot to handle. It caused the small, under-designed aircraft radiators to preheat to 140 Degrees Fahrenheit before engine start. This situation increased the incident rate of cooling system problems and overheated engines.

The sand of the desert areas was insufficiently packed, and did not provide adequate support for the wheel loading capacity of the aircraft. The airplanes, on take off, their wheels gripped in a furrow of sand, and totally underpowered, ran " . . . along the ground like quail for a quarter of a mile before getting enough purchase on the air to lift."[39]

The air currents, fierce whirlwinds and constant near ceiling operating altitudes presented the aviators a continuous hazard. On the ground, the winds peppered the aircraft with sand and flung them like toys. The flyers resorted to tying

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37"Government's Aeros Not Suitable for Mexico," Aerial Age Weekly, pp. 86, 95; and "Recommendations," "First Aero Report," pp. 10-11.

38"Difficulties of the Mexican Campaign," Aerial Age Weekly, July 3, 1916, p. 470.

39Ibid.; and Gregory Mason, "The Dough-Boy and the Truck[:] Some Lessons of Our Mexican Expedition," The Outlook, May 31, 1916, p. 282.

their machines down with tent pegs and rope to prevent damage. In the air, the same whirlwinds could prove almost fatal, as evidenced by Lieutenant Bowen's crash on March 20, 1916. The treacherous air currents of the mountains were more the real enemy of the aviators than the Villistas, and rarely were they conquered.[40]

In the period March 15, 1916, to August 15, 1916, the First Aero Squadron flew 540 sorties, logged 345 hours and 43 minutes, and traversed 19,553 miles.[41] Nearly every experience was a first, and the squadron personnel rose to the occasion. The flyers recognized the inherent dangers they faced and performed " . . . their service with the Punitive Expedition as a part of the day's work and simply in line of duty."[42]

The enlisted personnel provided the expedition with a rare technical skill, often performing double duty as aircraft technicians and motor transportation experts. Captain Foulois commended these men when he stated in his report:

> Without the willing and efficient cooperation of the enlisted men of this command the flying service of the Punitive Expedition would have ended at Columbus, New Mexico.[43]

The aviators of the First Aero Squadron had worked under

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[40]"Government's Aeros Not Suitable for Mexico," Aerial Age Weekly, April 3, 1916, p. 95.

[41]"First Aero Report," p. 9.

[42]"Recommendations," Ibid., p. 11.

[43]Ibid.

serious handicaps of inexperience, poor equipment, and inadequate support. Their failings were in no way attributable to mismanagement by Captain Foulois. This first combat air commander recognized the deficiencies of his unit and its equipment. He made a sincere effort to analyze the problems faced by General Pershing, and to seek effective alternative solutions to them. These he offered to his commander, who made a decision, thereby transferring the primary role of his air support to a courier role rather than one of reconnaissance. Foulois' able leadership and loyal service are evidenced by his rapid promotion to Brigadier General and subsequent appointment, September 3, 1917, as Chief of the Air Service.[44]

Captain Foulois, in his final report, tried to see beyond the moment and attempted to provide solutions to improve the Air Service based upon the limited field experience he had encountered. He recommended that centrally located logistical and repair depots be established at various central locations to provide support for tactical squadrons. These centers were to be independent in operation and fully equipped for repair, assembly, test, and modification of operational aircraft.[45]

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[44]U.S., Congress, House, Committee on Military Affairs, Pioneer Aviators, Hearings, before the Committee on Military Affairs, House of Representatives on H.R. 11273 (Statement of Hon. John J. McSwain, Brig. Gen. Benj. D. Foulois, Maj. Herbert A. Dargue, Maj Thos. De W. Milling), 70th Cong., 1st sess., 1928, p. 17.

[45]"Recommendations," "First Aero Report," p. 9.

His experiences led him to believe that a tactical squadron should confine its duties to the military employment of aircraft. Therefore, all aircraft received should be delivered in fighting shape and not require extensive overhauls before being put into service.[46]

As a result of the inadequate aircraft of his unit, Foulois suggested that the airplanes of the future should be tested in other than perfect or optimum conditions. He called for acceptable environmental service tests before an airplane was put into service. Further, he recommended that the alterations necessary " . . . be made by the manufacturer."[47] In order to accomplish these tests, he felt the government should create a flight test center.[48]

Captain Foulois also made recommendations in regard to squadron reorganization. The impact of the First Aero Squadron's failure, however, had greater effect than just squadron reorganization. Its collapse helped emphasize the cancer uncovered by the almost concurrent Court Martial of Lieutenant Colonel Goodier. The public airing of the Aviation Section's difficulties, coupled with its lack of capability forced the reorganization of the Air Service as initiated by the Secretary of War, Newton D. Baker in April 1916.[49]

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[46]Ibid., p. 10. [47]Ibid. [48]Ibid.

[49]"The News of the Week," Aerial Age Weekly, April 10, 1916, p. 111.

Although the First Aero Squadron did not provide total air support to the Mexican punitive expedition, it did introduce the United States Army and the leaders of the nation to the possibilities of air power in a tactical role.[50] As such it was recognized by General Pershing in his Report of Operations, June 30, 1916, who called particular attention to the words of the First Aero Squadron Commander.

> The experience gained by the commissioned and enlisted personnel of this command while on active duty with the Punitive Expedition, has been of the greatest value,and it is believed that the knowledge gained by all concerned should result in more rapid and efficient development of the aviation service in the United States Army.[51]

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[50] Foulois Autobiography, p. 156.

[50] Foulois Autobiography p. 43.

CHAPTER IX

THE EXPEDITION ENDS

The military force of the United States found itself unable to trap Villa. They had exhausted their capability for further pursuit in a hostile environment. Incapable of going forward and faced with untenable supply lines, General Pershing switched to a defensive force position rather than face a total withdrawal to the United States. The boundaries of the garrison were marked by the outposts of Carranzista soldiers that blocked further American movement toward the east, west, or south.[1]

The expedition remained, ostensively to patrol the State of Chihuahua in order to pacify those scattered Villistas it could locate. Pershing, on April 29, 1916, divided the area around his headquarters into five districts: Namiquipa, Guerrero, Bustillos, Saveto, and San Francisco de Borja. Each district was patrolled by the regiment of cavalry that had seen the most action within it. These regiments were organized as separate entities with their own intelligence service and a capability for independent command. It was assumed by Pershing that this arrangement offered the maximum initiative and flexi-

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[1]Carranza, "La Expedicion Punitiva," pp. 131, 139.

bility for the search and destruction of the scattered Villistas. Pershing cautioned each district commander to remember he was " . . . operating within the boundaries of a friendly nation . . . " but, if an unprovoked attack should occur they should not hesitate to administer severe punishment on the offenders.[2]

Throughout May and June, 1916, Pershing continued to concentrate his command around Colonia Dublan, as well as pursue bandits and observe Carranzista capability. By mid-June 1916, it was obvious that the Mexican army could cut the expedition's supply and communication lines whenever they desired. Mexican troop strength was massive: 22,000 at Chihuahua City, 10,000 at Villa Ahumada, and smaller concentrations positioned at strategic points along the railroad east and west of Colonia Dublan.[3]

As Pershing lacked aircraft for necessary reconnaissance activities, he was forced to use cavalry sweeps for the collection of intelligence. These sweeps were viewed with disfavor by the de facto Government. On June 16, 1916, General J. B. Trevino, Commander of Chihuahua, informed Pershing that he had orders " . . . to prevent, by use of arms . . . American forces . . . from moving to the south, east or west of the places they now occupy."[4] Pershing replied, " . . . my government has placed no restrictions upon the movements of American

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[2]"Pershing Report," pp. 24-28. [3]Ibid., p. 29.

[4]Ibid.; and Telegram, J. B. Trevino to Pershing, June 16, 1916, Foreign Relations 1916, p. 577.

forces. I shall . . . use my own judgement as to when and in what direction I shall move my forces. . . ."[5] Pershing did however brief his officers to avoid any conflicts with the Carranzistas when scouting the territory.[6]

President Wilson, faced with the growing threat of a border war, issued activation orders to the organized militia and national guard on June 18, 1916. The militia of each state was ordered to report its local base camp, instructed to get into shape, and to recruit to full strength.[7] Mexican President Carranza alerted by Wilson's mobilization orders, ordered a further concentration of Mexican forces and warned Mexican citizens to arm themselves.[8] As each side armed, any spark of ignition could cause war. On June 21, 1916, a cavalry sweep of Pershing's command very nearly did at Carrizal, Mexico.[9]

Two reconnaissance detachments, Troop C, Tenth Cavalry, Captain Charles T. Boyd, commanding; and Troop K, Tenth Cavalry, Captain Lewis S. Morey, commanding, joined forces at Oto Santo Domingo, 5:30 p.m., June 20, 1916. Boyd being senior, assumed

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[5]"Pershing Report," pp. 29-30; and Telegram, Pershing to J. B. Trevino, June 16, 1916, Foreign Relations 1916, p. 577.

[6]Report of Investigation of Encounter between Americans and de facto Government Forces, AGO files 2377632, Punitive Expedition, National Archives, Washington, D.C. (Microfilm.)

[7]Report of the Chief of Staff, Annual Reports 1916, pp. 189, 193.

[8]"Mobilizing the Militia," The Outlook, June 28, 1916, p. 443.

[9]"Monograph," p. IV-21.

command. Early the following morning, the two troops departed for Carrizal, well aware that 400 Carranzista cavalrymen occupied the village. They reached an open field, southeast of the town at 6:30 a.m., June 21, 1916. Boyd, intent upon passing through Carrizal, sent a message to the town Jefe Politico requesting permission to do so.[10]

The Mexicans, alerted by the approaching dust cloud, had evacuated the village of women and children. The defenders quickly established a defensive line in an irrigation ditch and behind cottonwood trees. Their position, which separated the Americans from the town, included a machine gun emplacement. As the Mexican soldiers waited, Lieutenant Colonel Rivas and two other Mexican officers rode out to meet the intruders. They informed Boyd that he could not traverse the village. Boyd was not satisfied with the decree and insisted upon speaking to the military commander, General Felix Gomez, who was still in bed.[11]

Twenty minutes later, General Gomez arrived; he too refused to give Boyd permission to pass through the town. The Mexican General's orders were to stop American intrusion east, west, or south of the garrison at Colonia Dublan. He informed Boyd, in no uncertain terms, that he would fight if necessary

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[10]"Pershing Report," pp. 30-31; and Lewis S. Morey, "The Cavalry Fight at Carrizal," The Cavalry Journal, January 1917, pp. 449-452.

[11]Carranza, "La Expedicion Punitiva," pp. 253-254.

to obey his directives.[12]

Captain Boyd returned to his waiting troops, dismounted them, and moved them up to a skirmish line 300 yards from the Mexican line. The troopers had their carbines loaded and at port. General Gomez and his officers were still mounted and at conference location as Boyd began forming his men. The Mexican officers viewed the entire maneuver with shock and astonishment, barely moving back to their left flank before the Americans passed the place where Gomez and Boyd had conversed.[13]

General Gomez acted stunned by the entire situation, but under questioning by his officers, he ordered his bugler to "Blow commence firing."[14] Both sides fired almost simultaneously. Among the first killed were Gomez and Boyd. The firefight lasted nearly an hour. The Mexicans, superior in force and arms, and possessing a machine gun, succeeded in enveloping the American positions.[15]

The American negro troopers wisely retreated. They faced a disaster, two of their three officers were killed, the third

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[12]Ibid., p. 255; and Telegram, Pershing to Funston, June 23, 1916, Foreign Relations 1916, p. 594.

[13]Morey, "The Cavalry Fight at Carrizal," pp. 452-454; and Carranza, "La Expedicion Punitiva," pp. 256-257.

[14]Ibid., p. 258.

[15]Telegram, Pershing to Funston, June 25, 1916, Foreign Relations 1916, p. 596; Carranza, "La Expedicion Punitiva," pp. 258-261; and Morey, "The Cavalry Fight at Carrizal," pp. 454-455.

wounded, and their horses had been scattered. They fled, some on foot and some on horseback, to the American owned Santo Domingo Ranch where they had spent the previous night.[16]

The Mexicans, who won the field, suffered the greatest battle casualties; seventy-two wounded and killed.[17] The American casualty list totaled forty-three: nine killed, ten wounded and twenty-four captured.[18]

The officials in Washington, D. C. were the first Americans to receive news of the battle, at 9:00 p.m., June 21, 1916, via Mexican diplomatic channels.[19] Secretary Lansing, earlier that same day concerned over the tenseness of the Mexican situation, had relayed a message of United States intentions to Argentina. He stated that the United States desired to avoid war as, "hostilities, in short, would be simply a state of

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[16]Ibid., p. 455; and Telegram, Pershing to Funston, June 23, 1916, Foreign Relations 1916, p. 594.

[17]Carranza, "La Expedicion Punitiva," p. 270. Estimates of the dead and wounded at Carrizal vary. Morey states the Mexicans " . . . lost according to their own statement twelve officers and thirty-three men killed, and fifty-three wounded."

[18]Report of the Adjutant General, Annual Reports 1916, pp. 279-280. Here again estimates vary; Tompkins, Chasing Villa, p. 209, states twelve killed, eleven wounded and twenty-three captured: the Report of Investigation shows twelve killed or missing, twelve wounded and twenty-four captured.

[19]Telegram, Special Representative Rodgers to the Secretary of State, June 21, 1916, Foreign Relations 1916, p. 592; and Telegram, The Adjutant General to General Funston, June 22, 1916, Foreign Relations 1916, p. 593.

international war without purpose. . . ."[20] Following this premise, President Wilson and Secretary of State Lansing disregarded the opinion of the American representatives in Mexico City, that the notification by the Mexican War Office was " . . . generally interpreted as announcement beginning hostilities."[21] Instead, orders were issued to delay all moves until General Pershing's official report arrived.[22]

The initial reports of the clash at Carrizal indicated the Americans had been lured into a trap. A full report, furnished by Captain Morey, fortunately clarified this, and clearly revealed the American intent of aggressive action. Boyd had directly disobeyed his orders, and had thereby precipitated the affair. Corrective diplomatic actions were taken, and the situation was eased.[23]

The news of the incident at Carrizal increased the pressure of public opinion on the administration. An immediate settle-

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[20]Letter, The Secretary of State to the Argentine Ambassador, June 21, 1916, Foreign Relations 1916, p. 592.

[21]Telegram, Special Representative Rodgers to the Secretary of State, June 21, 1916, Foreign Relations 1916, p. 592.

[22]Telegram, The Adjutant General to General Funston, June 22, 1916, Foreign Relations 1916, p. 593.

[23]"Pershing Report," p. 31; Telegrams, The Secretary of State to Special Representative Rodgers, June 22, 1916, Foreign Relations 1916; and Telegram, Pershing to Funston June 25, 1916, Foreign Relations 1916, p. 596. Pershing's summary shows he felt the responsibility was two-sided at Carrizal. He blames Boyd's indiscretion, and the de facto Government's insistence upon forcing an incident by armed opposition.

ment of the Mexican problem was demanded by the public. Letters to President Wilson arrived from all parts of the nation demanding solutions. Wilson redoubled his efforts to find one.[24]

The de facto Government in Mexico was just as eagerly seeking a road to compromise. It promptly, upon demand, released the prisoners taken at Carrizal to show its " . . . sincerity . . . to reach a peaceful and satisfactory settlement. . . ."[25] It then suggested, July 4, 1916, that a joint Latin American commission be established to find remedies to cure the sick relations between the United States and Mexico.[26]

President Wilson replied through Secretary Lansing, July 7, 1916. He accepted the suggestion of a joint commission as a means to a just and peaceful end.[27]

Meanwhile, the United States troop buildup along the border continued. By June 27, 1916, the first militia and national guard units were ready. Four days later, these units began movement to the border bases. By July 31, 1916, 112,000 State militiamen were in Texas, Arizona, and New Mexico.[28]

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[24]"Monograph," p. IV-33.

[25]Translation, Mr. Arredondo to the Secretary of State, July 4, 1916, Foreign Relations 1916, p. 599.

[26]Ibid.

[27]Letter, The Secretary of State to Mr. Arredondo, July 7, 1916, Foreign Relations, 1916, p. 600.

[28]Report of the Chief of Staff, Annual Reports 1916, p. 193.

The Navy too, in the possibility that war could happen, sent sixteen warships to the coastal cities of Mexico, as a show of force in late June.[29] The Aero Club of America, in an effort to bolster the weak Air Service, advocated the immediate training of 500 men as aviators and observers. In a burst of patriotism the Club, on July 3, 1916, offered to pay the boat-fare home of any member of the Franco-American Flying Corps, so that they could lend their combat experience to the United States. The French government, who had paid for their aviation training, refused to release the flyers.[30] The preparation for war activities across the nation caused the Outlook to note " . . . there were spectacles in the cities of the United States not seen since 1898."[31]

While awaiting the diplomatic settlement, the American expedition already in Mexico trained and maneuvered in the Colonia Dublan area. Lessons in musketry and tactics were practiced, and the men, forced to improvise in the field, cultivated their professional skills to new high levels of proficiency. For most of the officers, this was their first opportunity to participate and lead large scale field maneuvers.

29"Mobilizing the Militia," The Outlook, June 28, 1916, p. 443.

30"Aero Club Invites American Airmen in France to Return for Mexican Service," Aerial Age Weekly, July 3, 1916, p. 470.

31"Mobilizing the Militia," The Outlook, June 28, 1916, p. 443.

First Lieutenant George Patton wrote, because of the training received " . . . almost unimagined benefits have resulted."[32]

On January 18, 1917, these training activities came to an end. Based upon the recommendations of the American members of the Joint Commission, and in view of the growing probability of involvement in the European War, General Funston was directed, by the order of the President, to instruct General Pershing to prepare to withdraw from Mexico. Movement began immediately. The last column departed Colonia Dublan, January 31, 1917. By 3:00 p.m., February 5, 1917, all of the American forces had crossed the border.[33]

On April 6, 1917, only two months after the expedition returned to the United States, Congress declared a state of war existed between the United States and Germany. The American nation entered the great conflict, not unexpectedly and not totally unprepared. Its flabby army, weak air service, and unorganized national guard had been toughened by almost a year of field activities. Brigadier General Henry J. Reilly later stated:

Without the Mexican Border Service it is extremely

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[32]George S. Patton, Jr., "Cavalry Work of the Punitive Expedition," The Cavalry Journal, January 1917, pp. 426-433; "Monograph," pp. IV-34-IV-35; Report of the Chief of Staff, Annual Reports 1916, p. 189; and Tompkins, Chasing Villa, pp. 213-214.

[33]Report of the Adjutant General, in U.S., War Department, Annual Reports 1917, Vol. 1 (Washington, D.C.: Government Printing Office, 1918), p. 196.

> doubtful if General Pershing would have had the 300,000 with which he intervened in the Second Battle of the Marne: the 500,000 . . . /at/ Saint Mihiel . . . and the 1,200,000 used in the Argonne. . . .[34]

General Pershing himself wrote in his memoirs:

> . . . while my command in Mexico was taught the technique of trench fighting, it was more particularly trained in the war of movement. Without the application of open warfare methods, there could have been only open stalemate on the Western Front.[35]

Secretary of War Newton D. Baker also appreciated the fallout of experience received by both the militia and the regular elements from the large scale training. He wrote, the Mexican expedition:

> . . . by the mobilization of the Regular Army and the National Guard, . . . gave an excellent opportunity both to the men in the Guard and to the several supply departments of the Government, and thus afforded a most serviceable foundation upon which to proceed with the larger expansion of the Military Establishment which we were soon called upon to undertake.[36]

It is also very plausible to believe that Pershing himself owed his appointment as the Commander of the Allied Expeditionary Force to his previous command of the Mexican punitive expedition. Therefore, it can be seen the total effect of the expedition on the army, and its preparedness and mobilization was great.

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[34]Henry J. Reilly, "The National Guard on the Mexican Border," in Tompkins, Chasing Villa, p. 229.

[35]John J. Pershing, My Experiences in the World War (New York: Fredrick A. Stokes Company, 1931), Vol. I, pp. 10-11.

[36]Report of the Secretary of War, Annual Reports 1917, p. 10.

No where however was the lack of preparedness more evident than in the example provided by the Army Air Service.

The American citizen, safe from war and isolated by oceans from Europe, had not been overly concerned with preparedness in 1915, and did not want to " . . . overload themselves with taxation for defense. . . ."[37] Congress reflected this lethargic mood, and its military appropriations remained low in 1914 and 1915.

This attitude toward military expenditures was especially noticeable in the appropriations for the Army Air Service. Congressional expenditures for the machines that they considered experimental totalled only a scant 600,000 dollars by the end of 1915. The Aviation Section, limited in funds and manning, constrained by legislated personnel procedures, lacking proper equipment, and seriously needing reorganization, was not a viable air arm in early 1916.

Mexico and its problems were apparent to the American public. When the Mexican punitive expedition invaded Mexico, the United States' only operational air unit, the First Aero Squadron, was ordered to the field. The meager exploits of the pilots, propagandized by the Aero Club of America and other avid aviationists, captured the American public's eye.

The activities of the First Aero Squadron gave the nation a vivid illustration of the need for a well equipped aerial

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37"Is it Necessary," The Independent, October 25, 1915, p. 120.

force. Its "lack," in the words of Colonel Samuel F. Dallam, Seventh Cavalry, was " . . . the greatest deficiency [of the expedition]."[38] As it was the first time that the army employed even limited air power, its use, although far from effective, impressed General Pershing and other officers with military aviation's future potential.

Designated as scouts, the small squadron was scarcely able to function as a weak courier system. Although one of Pershing's greatest problems during the expedition was command control, and the First Aero Squadron supplied him his primary courier service, it is quite doubtful that the value of their services or their potential was as great as assumed by the Aero Club of America. These gentlemen were truly aviation faddists, and nothing would have satisfied them except a sky overcast with airplanes. However, the impact of their aerial campaign, coupled with the rapid collapse of the First Aero Squadron, convinced the American public, Congress, and the Secretary of War of the real need for an effective air service.

The immediate reaction of Congress was the Urgent Deficiencies Bill, March 31, 1916, providing 500,000 dollars for aircraft. This was followed by the National Defense Act, June 3, 1916, which authorized an eventual increase of aviation officers from 60 to 148, and an increase in enlisted personnal from 260 to 4000. It also removed the 1914 restrictions of

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[38]Dallam, "The Punitive Expedition of 1916," p. 396.

age, rank, and marital state. Probably the most important provision of this bill was that it granted the authorization for, and allocated the means to establish, an officers reserve corps as well as an enlisted reserve corps. Within these reserve corps was an aviation reserve corps. Through this vehicle, the buildup of aviators for World War I was achieved.[39] On August 29, 1916, Congress passed an air service appropriation for 13,281,666 dollars; ten times the entire total previously allocated for army aviation purposes. This bill's passage was directly attributed to the impact on Congress made by the failure of the First Aero Squadron in Mexico.[40]

The following year, 1917, the flood of expenditures continued, finally culminating in the great aviation appropriation of 640,667,889 dollars, passed July 25, 1917. Although this great sum resulted primarily from the pressing needs of World War I, it is well to remember the Congressional flood gates were opened as a result of the Mexican punitive expedition.[41]

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[39]U.S., Statutes at Large, Vol. XXXIX, pt. 1 (December 1915 to March 1917), "An Act For making further and more effectual provision for the national defense, and for other purposes, June 3, 1916, ch. 134, pp. 166-176.

[40]U.S., Statutes at Large, Vol. XXXIX pt. 1 (December 1915 to March 1917), "An Act Making appropriations for the support of the Army for the fiscal year ending June 30, 1917, and for other purposes," August 29, 1916, ch. 418, pp. 619-627.

[41]U.S., War Department, Annual Report of the Director of Military Aeronautics, United States Army, for the Fiscal Year ending June 30, 1918 (Washington, D.C.: Government Printing Office, 1918), pp. 3-4.

CHAPTER X

CONCLUSIONS

The events of the Mexican punitive expedition altered the course of American air power. The successes and the failures of the young aviators in their underpowered aircraft alerted the United States to the fact that it did not possess a viable air arm. On a grander scale, the actions of the expeditionary force alerted the United States to the condition of its army. Although Mexico was said to be " . . . a thorn in our side" in 1915, it actually turned out to be a blessing in disguise.[1]

The United States' intervention in Mexico in 1916 was a failure. It did not punish Villa; it only alienated the Mexican nation. Its lack of success can be attributed to two major causes. First, the United States Army was not capable of sustained combat operations on a large scale in 1916. Secondly, the Army did not possess those qualities necessary to capture or contain a guerrilla force operating in its native environment. General Pershing employed cavalry sweeps, search and destroy tactics, and district control methods in an attempt to capture Pancho Villa. These tactics could have succeeded if

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[1]Whitney, "Why Mexico is A Thorn in Our Side," May 19, 1915, p. 145.

the native population had been cooperative; however, it was not. The Mexican punitive expedition is an early example, for students of military history, of the necessity of indigenous support for successful conterinsurgency operations.

The Mexican punitive expedition provided both the Regular Army and the National Guard with the organizational training and combat hardening that prepared them for the United States' entrance into World War I. As such, it marked the end of the old horse cavalry and the creation of the modern mechanized army of the present. In addition, the military requirements of the expedition afforded the United States the precious time the nation needed to prepare for World War I during a period when United States public opinion opposed military preparedness.

Throughout the course of the expedition, General Pershing was faced with two major support problems: logistical support and command and control communications. In an attempt to achieve the latter, he used his meager observation capability of the First Aero Squadron in the dual role of courier and reconnaissance. The support furnished the expedition by the First Aero Squadron was not great, nor long lived; but its inadequacies rapidly drove Congress to provide the appropriations needed for the expansion of the Army Air Service.

Pre-World War I military men recognized the possibilities of air power in reconnaissance, artillery spotting, coastal defense, ground support, and to a limited degree, strategic operations. In those early years, the young army aviation

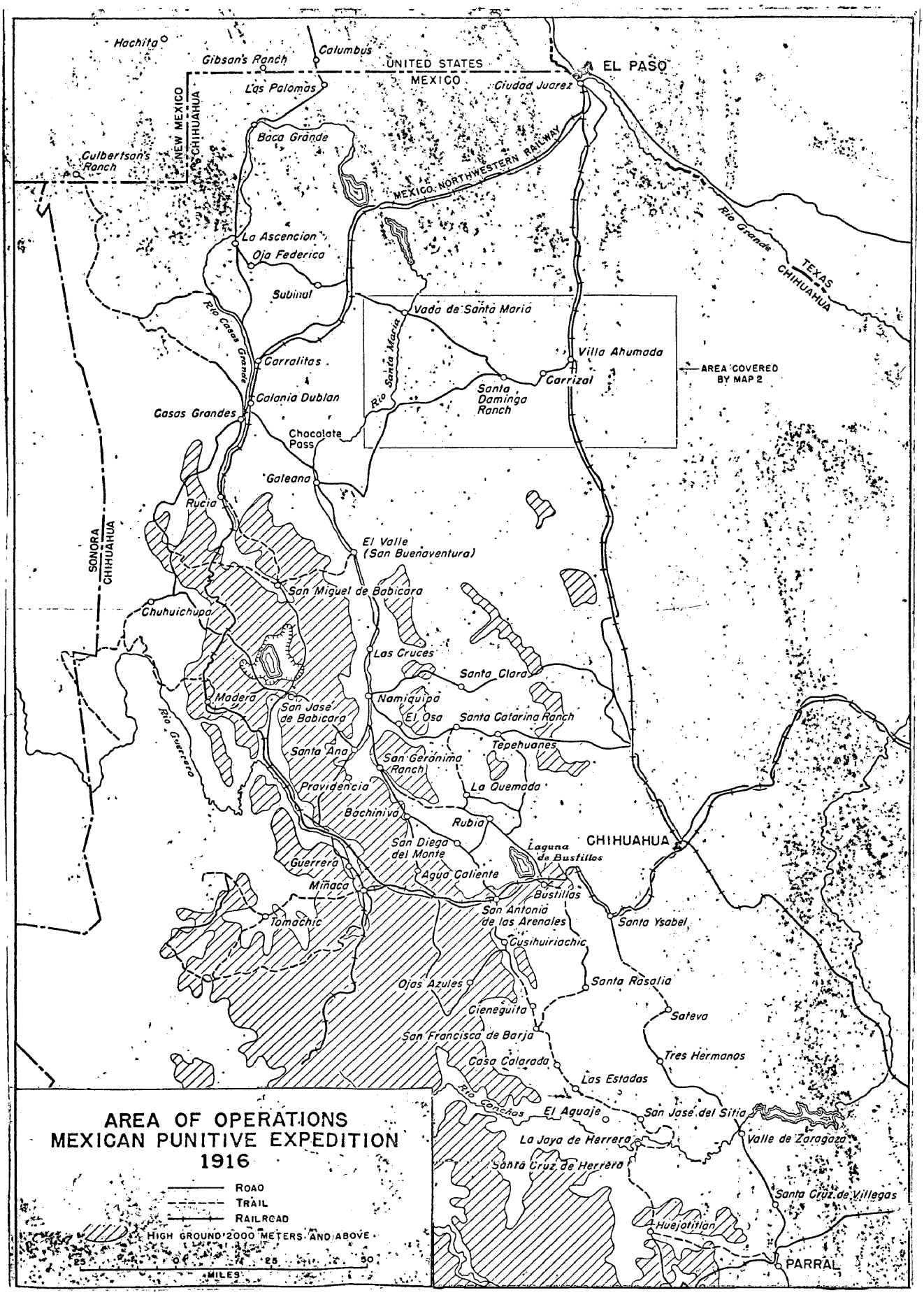
service was severely limited by its own inefficient organization as well as a Congressional reluctance to finance military experimentation. The Mexican situation afforded the military with an unplanned combat test of the new air service, and as a result, the United States was alerted to the United States Army's low aerial capability.

The first operational employment of air power was a failure. The inadequacies of airplanes not specifically designed for military purposes or severe environmental conditions became obvious. The need for aircraft manufacturing standards appeared, and high ranking military and civilian leaders began to appreciate the full impact of air power if it was available. Spurred on by public pressure and aviation's possibilities, Congress finally overcame its lethargy and opened the legislative and appropriation floodgates. In some instances, such as creating a viable aircraft industry, the action came almost too late. However, there is no doubt that the resultant effect of the failures of the First Aero Squadron was instrumental in creating and preparing the United States Army Air Service for World War I. The air leaders of the young Air Service became the air leaders of the Allied Expeditionary Forces, as well as the post World War I Air Service, and their experiences in Mexico tempered their future thinking. These experiences provided the embryo of today's Air Force operations in flight test centers, environmental testing, aeronautical chart centers, survival training, logistical and maintenance depots, as well

as tactics.

The Mexican punitive expedition was a distinct step in the history of military aviation. It heralded the importance of air power to the American nation. It focused the attention of the army, Congress, and the general public upon the future possibilities of air power, as well as the limitations of the past. Congress responded, and the wingless American eagle began to grow the war wings ultimately needed in the Great War. Therefore, it can be said, the Mexican punitive expedition is a true watershed in the history of the United States Air Force as it divides the period of pure aerial experimentation from the beginnings of operational air power employment, as well as establishing the base line posture for World War I preparedness.

APPENDIX A[1]



1 "Monograph," Appendix map.

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